Exp 0542

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I N D I C E

N° INTERNO	ARCHIVO	DOCUMENTO
349	5-D-1	Informe sobre personal de comunicaciones.
350	" "	Informe del SICO - cconclusiones y acciones recomendadas.
540	" "	Listado de puerto nacionales
541	" "	Organización de la Aviación Naval y su relación con la conducción de las operaciones aéreas navales durante el conflicto.
542	" "	Documentación referida al evento Malvinas.
550	" "	Art. Operaciones c/Helicópteros Livianos.
551	" "	Infor.Aerospatiales (Mis.Anti-Buques Exoce

ARMADA ARGENTINA

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ARCHIVO GENERAL DE LA ARMADA FOLIO Nº 01

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EXP E. INTE NO Nº 0543

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BUENOS AIRES, 11 de octubre de 1982

OBJETO: E/documentación referida evento Malvinas

AL SEÑOR JEFE DE OPERACIONES DEL ESTADO MAYOR GENERAL DE LA ARMADA.

De acuerdo con la directiva general impartida el día 7 de octubre del corriente en la exposición dada sobre la planificación del análisis de los eventos durante el conflicto en las Islas Malvinas, adjunto remito información obtenida por el SERVICIO NAVAL DE INVESTIGACION Y DESARROLLO en ESTADOS UNIDOS y que estimo puede ser de utilidad para la Comisión de estudios.

AGREGADOS: Fotocopia de un folleto "CHRONOLOGY OF A WAR"
Fotocopia de un artículo de la revista ASTRONAUTICS & AERONAUTICS.

COMANDO EN JEFE DE LA ARMADA - DIRECCION GENERAL DEL MATERIAL NAVAL

VICTOR J. NASINI
CONTRAALMIRANTE
DIRECTOR GENERAL DEL MATERIAL NAVAL

S-015

ESTADO MAYOR GENERAL DE LA ARMADA
JEFATURA DE OPERACIONES

ENTRADA: 15 OCT 1982

Conocimiento	JEFE	SUB-JEFE	JEFE D. SPACHO

GIRO	INTERNO
POLITICA Y ESTRATEGIA	
Div. Política Naval	
Div. Estrategia Naval	
PLANEAMIENTO	
Div. Planeamiento	
Div. Doctrina	
Div. P. P. C.	
MEDIOS	
Div. Med. de Sup. y A.A.	
Div. Med. Sub. y A. Sub.	
Div. Informatica	
OPERACIONES	15 OCT 82
Div. Planes y C. de Oper.	
SECRETARIA Y DESPACHO	
GIRO EXTERNO	
Comisión ESTUDIOS - ESGN	
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ESCUELA DE GUERRA NAVAL
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GIRO INTERNO	DPTO y/o DIVISION		TRA	CON	FIRMA
	DIRECTOR	1		X	
	SUBDIRECTOR	2		X	
	DPTO. ENSEÑANZA	3			
	DPTO. INVESTIGACION	4			
	DIVISION SECRETARIA	5		X	
	DIV. ABASTECIMIENTO	6			
	DIV. SERVICIOS GENERALES	7			
	PERSONAL MILITAR	8			
	PERSONAL CIVIL	9			
	PUBLICACIONES	10			
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FOLIO
N°02

Defense & Foreign Affairs

Chronology of a War

News and comment from the pages of Defense & Foreign Affairs Publications

- *Defense & Foreign Affairs Daily*
- *Defense & Foreign Affairs*
- *Strategy Week*

Presented to Attendees at the
Conference on the Lessons of the South Atlantic War

Royal Aeronautical Society, London
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N° 03

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The Falklands War: Update

Publisher Gregory Copley looks at the first lessons in the Argentina-UK conflict in the South Atlantic: the first six weeks

Post mortems are, by definition, reserved for the time when an issue, no longer live, can be examined retroactively. This can provide clarity and the opportunity for disinterested objectivity. But it can also provide the opportunity to rearrange history into convenient, manageable and palatable proportions. And no matter how honest a post mortem might be, the ending of an issue, such as the current Falklands conflict, will tend to obscure the beginnings of it. It is therefore worthwhile to examine some of the aspects and lessons learned in the first month or so of the hostilities between the United Kingdom and Argentina.

The lessons are, as with most conflicts, most resident in the failures, rather than the successes.

TOP: British Prime Minister Thatcher.
BELOW: Foreign Secretary — and former Defence Secretary — Francis Pym.

The Failure of Intelligence

Britain was unprepared when, on April 2, 1982, Argentine forces invaded the Falkland Islands in the South Atlantic, capturing them from a small group of defending Royal Marines with little loss of life or time. Clearly, there must have been warning signs, just as there were in 1973 before Egyptian forces attacked Israeli military positions in the Sinai. And just as Israeli intelligence services failed to heed the indicators, so too did Britain's MI-6 and the Foreign Office itself fail to heed the signals from Buenos Aires.

Britain's Foreign Secretary at the time, Lord Carrington, immediately paid for that failure with the loss of his job. Clearly, though, three factors contributed to the failure: a lack of intelligence assets in the area providing concrete confirmation of an impending Argentine action; the relegation of a low priority to intelligence from that part of the world, as Britain concentrated its strategic efforts entirely on the NATO-Warsaw Pact confrontation; and the failure to fit Argentine ambitions into the British logic pattern. From a British standpoint, the Argentine action wasn't logical, justified or realistic.

Britain underrated Argentine military capabilities and ambitions, but more particularly did not understand that the domestic Argentine situation was *bound* to force President Leopoldo Fortunato Galtieri into an action of desperation to save his power base. Indeed, there were sufficient indicators in this man's background to point to the fact that this was not such an uncharacteristic gesture. Instead of trying to step into Peron's shoes, he saw himself as a national savior of sorts, replacing Peron's sway over the unions with a rallying heroism, diverting the country from its downward spiral of economic woes and political division.

Top-level US intelligence sources indicated to *Defense & Foreign Affairs* that they had supplied the UK with indications of Argentine moves related to the Falklands invasion, and other Latin American sources indicated that some Bolivian and possibly Peruvian generals were given hints by Buenos Aires of an impending action. Britain chose to ignore this, and even let British technicians repair and install British Aerospace *Sea Dart* naval surface-to-air missiles on Argentine warships one week prior to the invasion. Washington sources claimed after the attack that they had warned London, but, with the Pentagon's close and warm relationship with Gen. Galtieri (who may have not achieved the leadership without the seal of approval from the Pentagon) it is possible that the US' warnings were couched in soft words.

The details of the failures of intelligence and cultural perceptions by the British deserve greater analysis, but suffice it to say here that part of the reason why conflict was not deterred was because Britain did nothing to deter it. There was little more the UK could have done *militarily* to prepare, given the lead time, but it could have sobered Gen. Galtieri and his Junta by a reassurance of British military and political resolve on the issue. It may have turned the Junta to other solutions to its domestic crisis.

The Chilean Government, which recorded *several hundred* Argentine "acts of aggression" against its ships and territory in the Beagle Channel area in January alone, had tried to inform whichever diplomatic sources would listen that Argentina was preparing for some broader military exercises. Chilean intelligence sources concluded that this would *not* be against Chile in the South because this — at the time — seemed to tortuous a military operation for Argen-

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tina to contemplate given the likelihood of protracted Chilean resistance. Argentina's choice of the Falklands was precisely because it was felt that the US would forestall British military retaliation.

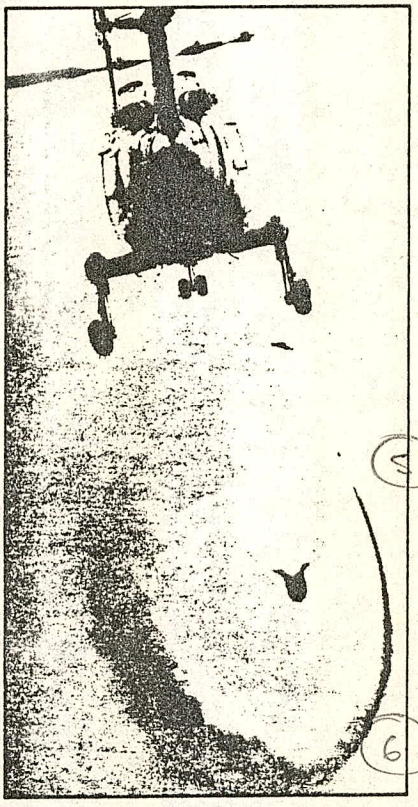
Argentina's Planning Failure

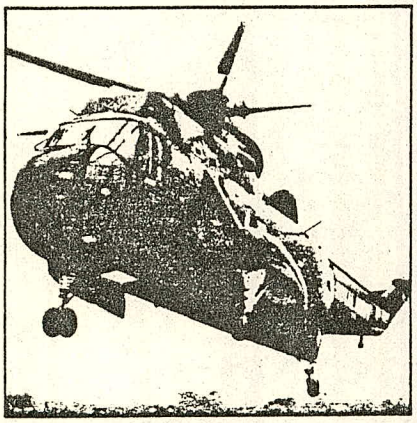
Britain may have underrated the Argentines but the Argentine Government clearly also failed to correctly evaluate the likely British response. Aggressive assertions of their own capability by the Argentine services obviously were the deciding factor as to whether Argentina should or should not invade. Such reliance on only one aspect of the equation may well prove fatal. Certainly it has already (by press time at May 15) led to a greater loss of life than was anticipated by the Argentine Government.

The Junta failed to consider British history and experience, and the character of the current British Government. Britain has historically united vigorously when its interests have been attacked. It is interesting to note that the Junta, while believing that the Falklands' excursion would weld the Argentine population behind the Government, did not believe that the action would similarly unite the British public. Statements by Argentine officials have subsequently underscored Buenos Aires' belief that "the British Lion is finished", and that the sun has set on the British Empire.

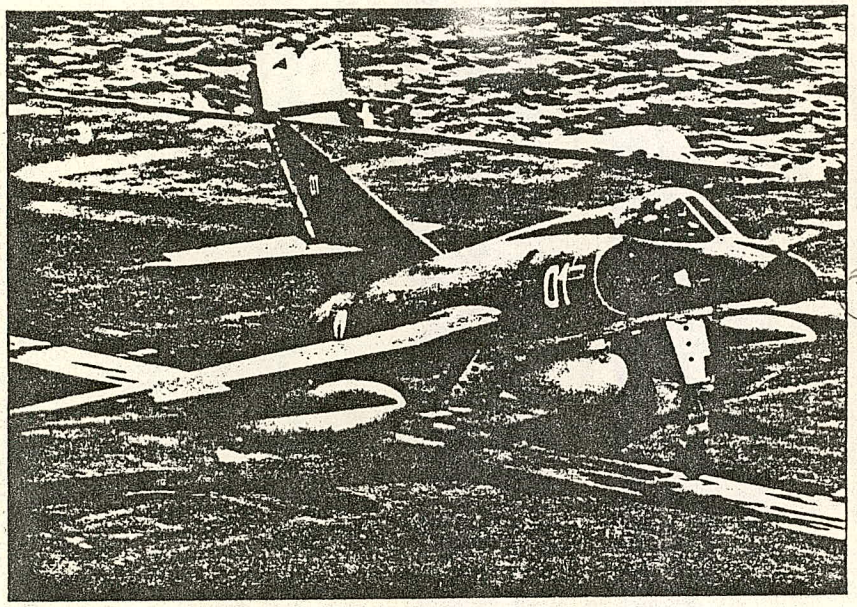
Such assessments have been made on numerous occasions over the past 900 or so years, and yet British international strength and national capability continues to revive after periodic bouts of what appear to be terminal economic and political despondency. Two other factors were obviously also given insufficient weight by the Argentine generals: British military experience, including the capacity to sustain long-distance conflicts with skill and ingenuity; and the necessity for Prime Minister Thatcher to show strength for her own political reasons.

Mrs Thatcher would have had to resign if she had not met force with force, so why should Gen. Galtieri believe that his British opposite number would so easily relinquish the reins of power any more than he would when faced with an unpalatable domestic situation?





BOTTOM: *Proven* — AMD-Breguet's new *Super Etendard* carrier-based strike fighter, rushed into Argentine Navy service with considerable success. BELOW: *Proven* — Westland's *Sea King* heavy naval helicopter, operating in a variety of rôles. RIGHT: *Proven* — the Westland *Lynx* helicopter and British Aerospace *Sea Skua* ASM combination.



The Weapons Proving

The Falklands War has already proven to be a milestone conflict, and many more military-technological lessons are doubtless yet to come. In highlight, here are some of the significant factors thus far:

► Britain has proven itself, once again, to be one of three, or possibly four countries capable of mounting and sustaining a conflict 8,000 miles from its home base. (The others, quite apparently, are the US, the USSR, and possibly France.) In this regard, the continued control of such strategic bases as Ascension Island (3,800 miles from the Falklands) has proven indispensable.

► Britain's rundown of its Armed Forces, while economically the only apparent option at the time, was precipitous, and the current conflict leaves NATO in a position of extreme vulnerability. The inability of a country to sustain conflict on every front simultaneously is obvious. Indeed, Britain lost the American colonies in 1776 precisely because agitation was fostered there whilst the bulk of British strategic preoccupation was in dealing with the French in Europe, the Eastern Atlantic and the Med.

► Nuclear-powered submarines have, with the Falklands War, made their official debut in conflict, with two-fold success. The presence of HM Submarine *Dreadnought* (although it was not then revealed which vessel was there, by the British) and possibly other hunter-killer SSNs, caused the Argentines to exercise caution in their logistics support of the

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Falklands invasion force in early April. And of course it was significant that Argentine anti-submarine warfare capabilities were insufficient to track and deter HM Submarine *Conqueror* from sinking the Argentine heavy cruiser *General Belgrano* with two wire-guided Marconi Mk. 24 *Tigerfish* torpedos. The efficacy of that combination of SSN and *Tigerfish* has been proven. The *General Belgrano* was not unescorted, and yet its pickets proved unable to stop the submarine, nor even to undertake rescue operations for the crew of the *Belgrano* for a period of 24 hours.

The account of the sinking by the *Belgrano's* captain indicated, as with the subsequent sinking of the much more modern HMS *Sheffield*, that damage control systems were not equal to modern weapons strikes. The *Belgrano* lost all electrical power and was unable, therefore, to use its pumps to save the ship.

► The British Aerospace *Sea Skua* air-launched anti-ship missile dramatically proved its viability even though it was rushed into service ahead of schedule because of the conflict. But, despite poor weather conditions, it also proved the success of the marriage of the Westland *Lynx* helicopter and the *Sea Skua*. At least one Argentine patrol craft was sunk by two *Lynx*-launched *Sea Skuas*, and another was at least damaged. This weapons useage was a significant case of operational doctrine being developed in hot conflict, although the theory had obviously been clearly delineated in advance. Westland's claims to poor-weather capability for *Lynx* and *Sea King* helicopters have also been proven, as has the versatility of the aircraft in a variety of naval and assault rôles.

► Clearly proven: the viability of such missiles as the French Aérospatiale AM.39 *Exocet* anti-ship missile even in a dense ECM zone involving NATO-sophisticated warships. Launch range was around 20 to 25 miles, and the launch aircraft, AMD-Breguet *Super Etendard* fighters, were painted by British radar as hostiles. The attack raises many questions, including why the *Sheffield* was hit rather than HMS *Hermes*, a larger and more significant target, which was reportedly nearby. Did this relate to the fact that the Argentines had to complete the "fine-tuning" (to quote Argentine naval sources) of the AM.39s themselves after French officials refused to finish the task in accordance with France's embargo on military support to Argentina during the conflict?

There is also the suggestion that, to avoid British electronic countermeasures, the controlling *Super Etendard* which launched the weapon may have only used the *Exocet's* radar guidance system intermittently to paint its target, making the terminal stages of its run strictly on inertial guidance, undisturbed by ECM. If this is the case it may well have been a strike mixed with skill and luck, relying on the density of ships in the target zone.

Other questions remain, however. *Sheffield* had BAe *Sea Dart* SAMs which have some anti-missile capability; were they unequal to the task, or could they not be brought to bear? Other destroyers of the Type 22 *Broadsword* class were in the region, equipped with BAe *Sea Wolf* anti-missile missiles. Could they not be brought to bear, either? Has a doctrine yet to be developed whereby *Sea Wolf* can be used to protect other than the vessel on which they are embarked?

It is understood that several AM.39s were launched in the attack, leaving the Argentine Navy aircraft with only a very few air-launchable *Exocets* available. It is not known whether surface-launched MM.38 *Exocets* can be converted to air-launched, but no doubt the Argentine Navy is examining this as we go to press. Argentina's two Type 42 destroyers (ironically, the *Sheffield*-class in Royal Navy parlance) are, unlike their RN counterparts, equipped with *Exocet*, so the British fleet must expect further use of this type of missile in the conflict.

Will the AM.39/*Super Etendard* attack cause the RN to change flotilla formations to avoid the concentration of capital ships, such as two carriers operating together? And would this then render them more susceptible to Argentine submarines?

► The *Exocet* attack, more than any other single incident thus far, raises a question which was first pressed in the pages of *Defense & Foreign Affairs* several years ago by RADM Julian Lake, USN (ret.), who had commanded the US Navy's Electronic Systems Command. He's generally regarded as the father of US Navy electronic warfare, developed in Vietnam. He said in an article in this journal that the West paid too little heed to conflicts in which the originators of modern weapons would be facing their own products which, to the best of their skill, had been developed as immune as possible to countermeasures.

Britain now faces that dilemma. But in a situation where some weapons are identical, operational doctrine will now be the deciding factor.

► Sweden's FFV *Carl Gustav* light anti-tank rocket system also had its first taste of combat when Argentine forces first invaded the South Georgia Island port of Grytviken. Several of the rockets were used by Royal Marines against the relatively new French-built A-69 frigate *Guerrico*, severely damaging it.

► Of significant NATO interest is the fact that the RAF *Vulcan* B.2 bombers reportedly used the new Hunting JP233 anti-airfield cratering bomb against the Port Stanley airfield, with pointed success. At a time when air re-supply is critical to any long-range Argentine strategies with regard to the Falklands, the loss of the airfield is significant. The JP233 had been developed for use on the Panavia *Tornado*, but the few weeks lapse between the Argentine invasion and the *Vulcan* strikes apparently gave the RAF time to prepare the weapon which had not yet been introduced into service. Practice runs with 1,000 lb. bombs and possibly JP233s on Garvie Island, off Scotland, gave the RAF all the practice they needed with the *Vulcans*.

► The effectiveness of the *Vulcan* in a high-level, long-range bombing rôle must highlight the effectiveness of such tactics, especially in non-European scenarios. Modern air defenses are gearing, worldwide, to counter the low-level threats. Early-warning and SAM/fighter systems were clearly not available to counter this specific threat as far as Argentina was concerned, and it seems apparent that the UK could take such tactics to the Argentine mainland if it so desired. The retention of the *Vulcan* must therefore be a consideration for the UK. Similarly, carrier-borne BAe *Buccaneer* strike aircraft, with their heavy bomb-load and long range, could have been ideal for the kind of conflict we have been witnessing.

► The essential nature of air-to-air refuelling has been clearly demonstrated, and the current British Defence Procurement Minister's keen interest in supplementing the RAF's aerial refuelling capacity has clearly been vindicated. Argentina's ultimate air combat capability over the Falklands may depend upon the few *Super Etendards* in service, as they can "buddy" refuel each other. (Despite this capability, Argentina had already by press time lost one of the aircraft because of a fuel shortage leading to a ditching.) The shorter ranged Israeli- and French-built *Mirage III* fighters have insufficient time over target and have already proven themselves incapable of matching the threat when they get there.

► In this war of "firsts", we have also seen the first operational use of vertical take-off fighters. While some questions

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can be asked about the use of the RN's air combat-oriented *Sea Harriers* in the strikes against land targets, it is apparent that Britain could not have in any meaningful way answered the Argentine invasion of the Falklands if it had not had the *Sea Harriers*. And once British forces move ashore, the fighters will give them superior air defenses to those available to the island's Argentine defenders.

One advantage the V/STOL fighters have over conventional carrier-based aircraft is that, once the forces are ashore on an island where the airfields have been destroyed, immediate close support aircraft are at hand. They need not come off the carrier. The carrier can retire to a safe zone. Obviously, as the US Navy and Marine Corps have, it would be ideal to mix conventional carrier forces with V/STOL forces.

The imminent introduction of Royal Air Force GR.Mk.3 *Harriers*, equipped for overland operations, may provide additional proof — if it is needed — of the value of V/STOL combat aircraft. The aerial engagements in which *Sea Harriers* successfully tackled Argentine *Mirages* and (albeit obsolescent) *Canberra* aircraft has proven the value in air-to-air combat.

Interestingly, the *Sea Harrier* shot down on Britain's first raids on the Falkland bases had recently been involved in trials of the new *Sea Eagle* anti-shipping missile. Was the aircraft still wired for this? And does this give the wreckage some intelligence value?

Apart from the air-ferrying of the GR.Mk.3 *Harriers* by the RAF to Ascension Island, other *Sea Harriers* were *en route* aboard a container ship. This raises the question, once again, of the US study two years ago of *Project Arapabo*, under which civilian container vessels could be quickly converted to have an auxiliary rôle as *Harrier Carriers* in wartime. Such a contingent plan, with the small and cheap hardware to do it, would have — had it been implemented — provided an ideal additional capacity for the RN.

► Argentine Armed Forces had not, for many years, indulged in conventional combat tasks. Theirs had been largely an internal security function. Confrontations with neighbor-states had, by virtue of terrain, been relegated to the Navy and potentially to the Air Force. But no operational experience had been forthcoming, while at the same time the commanders had been largely preoccupied with the country's internal problems and had not given sufficient attention to the international lessons of strategy.

Consequently, the forces developed as a modern version of a Continental European force structure, with little consideration given to real rôles. The same could be said of such countries as Australia, although periodic conflict involvement has made that country somewhat more responsive to reality. But as a result of the first steps of the Falklands invasion, the Argentine military leadership realized the frailty of some of the systems on which they relied. China, too, had quickly found the creaks and groans of its own southern military structure which, after years of atrophy, had gone into conflict with Vietnam just a few years ago.

As a result, the Chiefs of Staff Joint Command in Buenos Aires were quick to label the post-invasion support of their forces on the Falklands a shambles. It was "a comedy of errors" one Chiefs of Staff source told *Defense & Foreign Affairs*. And as a result, Argentine senior military officials have decided, reportedly, to completely restructure their defenses into a "Quick Reaction Force", with the emphasis on mobility and logistics.

It remains to be seen whether this can be done during the current conflict or whether it will emerge as a post-conflict option.

► Atrophy had also hampered British defense preparedness. Again, the lone voice of the current British Defence Procurement Minister (Parliamentary Under-Secretary for Defence Procurement), Geoffrey Pattie, MP, on the matter of identifying a defense industrial base and mobilization methodology has been vindicated.

"What used to take us years to get we're now getting in days," one Royal Air Force official told *Defense & Foreign Affairs*.

There is, obviously, a cost element to this, and yet if nothing else, the Falklands dispute has taken the "creaks and groans" out of much of the British defense-industrial base, showing just how rapidly the country could respond to crisis. Almost certainly, as a result of this, systems will be easier to devise whereby even more rapid response could be made to a NATO crisis. Defense mobilization will be the new buzz-word in Whitehall.

The conflict came only just in time to save the Royal Navy from disposing of several more of its key support ships. It may also elect now to keep the carrier HMS *Invincible* rather than to go through with its sale to the Royal Australian Navy. Significantly, an earlier HMS *Invincible* went to Australia as the RAN's first flagship, re-named HMAS *Australia*, but it was an ill-fated ship. The current *Invincible* may also be ill-fated for Australians: they may not get it.

The sequestering of a number of civilian vessels for war purposes by Britain has also been an effective method of bolstering naval capacity, and while this may be derided as a hasty measure by outside observers, it is a logical — and planned-for — expediency which makes the maintenance of peace-time forces economically feasible. But the support for a country's merchant marine becomes all the more critical if this sort of thing is to be anticipated. Could the United States command such a proportionately great merchant marine response, given the fact that most US ships carry foreign flags because of the huge penalties placed on US ship-owners by the demands of unionism?

► One major British shortfall is in airborne early warning and electronic warfare, despite the fact that they have considerably more of this than the Argentines at present. RAF *Nimrod Mk.II* aircraft in an ASW and AEW mode are understood to have been sent to Ascension from whence they will fly cover for the fleet and invasion force. British Aerospace in Manchester worked overtime, and in a matter of weeks had fitted the *Nimrods* — which already had extremely long duration — with aerial refuelling probes, so that *Victor* tankers could stretch their endurance still further. But they still lack a capacity to handle air targets posing a threat to the fleet: the *Nimrod's* main current AEW orientation is toward surface targets, where it is unparallelled at present.

It is in this area that the UK may well request support from the US Navy, possibly acquiring on loan some Grumman E-2C *Hawkeyes* for AEW, and some EA-6Bs for electronic warfare. These, of course, would have to fly out of Ascension with aerial refuelling, possibly straining the current RAF aerial refuelling capability.

In summary, the military-technological lessons are still pouring in. The above list does nothing more than raise some of the issues. Such things as the rather dramatic effectiveness of the *Sea King* and *Lynx* helicopters in gun and rocket attacks — in addition to their very impressive "first": sinking an enemy ship by helicopter-launched missile — have yet to be fully evaluated.

As well, the full extent is not really known of Argentina's military lessons. It had prepared its air defenses on the Falklands as best it could, given its inventory. The destruction of the airfields on the island will severely curtail the use of

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locally-based aircraft to defend against a British counter-invasion. But we may well see roads used as runways for FMA IA.58 *Pucará* twin-turboprop COIN aircraft and possibly even the Macchi MB.339 which appears to be there — even though it hasn't been logged as being in the Argentine inventory — may be useable from roadways. (Most listings include eight Macchi MB.326GBs in the Argentine Navy, but *Defense & Foreign Affairs* photo analysis has shown what are almost certainly the much more combat-capable MB.339, even though the only recorded sales have been to the Italian Air Force. At least two MB.339s were damaged by British air attacks, and it is not known how many — if any — others of the type are at Port Stanley.)

One of the real defense problems for the Argentines will be fuel and ammunition supplies when combat begins.

And while it is known that British ASW is superior to Argentine at present, some Argentine successes with their 1,200 ton *Salta*-class (Howaldtswerke Type 209/1) submarines cannot be ruled out.

As well, we are yet to see British Army equipment put to the test, but we will, given the current scenario of a British military re-invasion of the Falklands. Some British Army (SAS) and Royal Marine Commando units have, reportedly, been ashore for some time preparing the intelligence base for the invasion. All this should have been verified by the time this edition appears, and will be the subject of future analysis in *Defense & Foreign Affairs*.

In a month or so, too, we should have a more clear picture on the military support measures which Argentina has been able to effect, despite a heavy international blacklisting. Extensive arms from Brazil, reportedly, were being negotiated for during mid-May. And Israeli support, or at least advice, was also reportedly still being provided, despite Israel's general commitment to assist US international strategy (which currently wants Argentina cut off militarily).

Whither Moscow?

One would have expected a more voluble Soviet involvement in the conflict, although the level of its interest is obviously higher than has been publicly acknowledged.

The current Soviet leadership transition crisis (see *Defense & Foreign Affairs*, April 1982, page 3) has undoubtedly kept the top minds in Moscow preoccupied, especially following the death of Mikhail Suslov and the deteriorating health of President Leonid Brezhnev. At other times — including the time of the Chinese invasion of Vietnam — we saw that illness in the Soviet leadership meant that the country's involvement in major vital foreign issues was diminished.

Militarily, the number of Soviet intelligence trawlers following the British fleets, and the number of Soviet submarines in the region, has provided analysts with cause for concern. The risk exists of British ASW action against Soviet submarines if contacts cannot be positively identified.

The Soviet ability to be involved, even as obsevers, in the conflict is a tribute to Moscow's far-sighted strategic policies of the 1960s, when it supported revolutionary movements in Angola and elsewhere in Africa. Its ability to monitor operations is now aided by the basing facilities its vessels enjoy in Angola and possibly Guinea-Bissau. It is also possible that the sporadic Soviet electronic intelligence reportedly provided to the Argentinians is aided by Soviet listening bases in Antarctica, as well as aboard its submarines and trawlers.

Were the issues less critical in terms of human lives, it would be sheer entertainment to watch the Soviet psycho-political handling of the conflict. Soviet attitudes have, naturally, been resolved by expediency: the USSR needs Argentine grain and sees an opportunity to acquire it at favorable rates, possibly, in the not-too-distant future by bartering it for Soviet weapons. As well, it sees the first real chance of gaining an entrée of substance on the South American continent, giving it leverage to support its own and Argentina's claims against Chile.

Soviet strategic gains would be high in any rapprochement with Argentina. Win, lose or draw in the conflict, Argentina will have few friends among the superpowers unless the United States and Britain move quickly to heal the wounds with any new Argentine Government. This means a wheat-for-weapons prospect which saves Soviet hard currency. It means strong access to Antarctica for strategic purposes, and the prospect of denial at key periods of this access to the West. It sews up the South Atlantic, ending any Western dreams of a "South Atlantic Treaty Organization". And it could *de facto* control a vital sea lane: the Cape Horn route.

More than that, its presence and impact would be enhanced throughout Latin America, while that of the US would be diminished, with unpredictable consequences for future US strategic control.

From an ideological viewpoint, the war has ended any Soviet pretense of its supporting only nominally "progressive" governments. Its warm embrace of so anti-communist a Government as that of Argentina may well offend some of the less radical Marxists around the world, just as the Hitler-Stalin Pact did before World War II. And, if British Labour Party leaders such as Anthony Wedgewood-Benn continue to support a non-force line in the dispute, they too may be seen as being too closely aligned with both the Argentines and the Soviets, and lose what remains of their UK power base. This can only reinforce the Conservative Party position in the UK, or at least the Social Democratic position. It would reinforce a more defense-minded and conservative Britain *vis-à-vis* the Warsaw Pact.

At this stage, however, apart from siding with what it once termed a "fascist dictatorship" against British "colonialism", Soviet involvement is expected to be cautious and indirect. The indirect support, however, certainly includes intelligence and matériel support via Cuba. Immediately following the outbreak of hostilities, Cuba sent a transport aircraft loaded with officials to talk with the Argentines in Buenos Aires. Brazil forced down the aircraft over its territory, but later allowed it to proceed. Cuba has also promised Soviet ASW gear to Argentina, but this may not be in time to be effective.

The most significant aid which Moscow can give to Argentina now, with Cuba, is intelligence. In this regard, satellite intelligence may be limited because of current weather conditions, but signals intelligence (SIGINT), communications intelligence (COMINT), and electronic intelligence (ELINT) is most certainly being passed to Argentina. The vast British command and control network involved, over 8,000 miles, is therefore vulnerable to intercepts at this stage, as is its consulting link with the US.

The Psycho-Politics

Conflict often provides a natural catalyst for public opinion in the countries concerned, and therefore impacts upon the power bases and options of their leaderships. Two conditions generally provide positive reinforcement for leaders: when the country is winning, or when there is little option but to fight on. Britain switched from the second of these to the first during World War II. It may go from the first to the second in the Falklands War. With Britain, "little option but to fight on" will in this case revolve around a point of national honor

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rather than one of national survival. It is therefore of relatively finite duration, although that could well be sufficient to assure it victory, given the even worse Argentine economic conditions which affect morale there.

Britain's belief that the use of force as the only lever it has toward negotiation — and to the maintenance of political stability in the UK itself — is almost certainly correct. However, the amount and duration of that force may not have been accurately gauged in London.

Force itself has proven insufficient to bring the Argentine military to heel. They have proven themselves relatively competent and resourceful, and see no reason to settle prematurely for military reasons. The morale of the generals and admirals is high, even if there may be some doubts in the minds of conscripts.

The use of force by the UK can have only two purposes: the decisive military victory which would give the Falklands back to Britain; and the humiliation of the Argentine Junta to such a degree that, coupled with economic hardships inflicted on the population, public pressure would force yet another coup or a toppling of the present Government. Both objectives are not yet close at hand.

The Argentine Government naturally did what the British Government cannot do: it imposed a highly-effective censorship on the country, thereby limiting what its citizens could generally learn of the conflict.

Press censorship — coupled with an extremely supportive media in Argentina — and jamming of foreign short-wave broadcasts has given the Junta the ability to control public opinion until this time. The church, in a highly Roman Catholic society, has reinforced the authority of the Junta.

Britain has begun to retaliate, by increasing the amount, and number or frequencies, of its BBC broadcasts of news to Argentina, in Spanish. This will eventually have an impact.

Additionally, as has already been shown, the Junta can only limit by so much the leaking of bad news to the Argentine public. The sinking of the *General Belgrano* was contained for some time, no doubt while the Government sought to phrase the loss in a light most favorable to itself and prejudicial to the public view of the British. In this they were successful.

The British Government was itself shaken by the subsequent loss of HMS *Sheffield*, and, because of British information techniques — as with American — it had to announce its loss baldly. It took a lot of jingoism out of the British public: the war took on a new and more sober tone.

While Britain may attempt to reassure the Argentine public that its leaders cannot assure it of victory, and that the Falklands invasion was an attempt to throw public attention off the explosive domestic economic condition, it can hardly ever hope to convince Argentinians that the Falklands Islands are not Argentine. For almost 150 years the message of Argentina's "rights" to the Falklands has been drummed with religious fervor into every Argentine schoolchild. Fighting — even losing — a war for these islands can only reinforce such a sentiment.

Britain's position must be one of psycho-political action, rather than reaction, if it is to maintain any momentum. Military actions must be seen to punish Argentina at will, emphasizing the ultimate helplessness of Argentine military units, and therefore the folly of the Junta in inviting the war in the first place. This provides the only real basis for Britain to engineer Argentine public pressure on the Junta to negotiate a settlement.

The political clock is running as much against Britain as against the Argentines. The initial — and surprising — strength of the European Economic Community's support for Britain and against Argentina is now running out. The Continental states are not themselves involved in the war, and lack the adrenalin which direct involvement brings to a nation. As EEC support dwindles, so the voice of the opposition will rise in Britain. The Thatcher Government — enjoying a massive 76 percent public approval of its handling of the situation — will face mounting pressures to settle the issue on less than favorable terms.

Prime Minister Winston Churchill faced similar discontent during World War II, but fended it off. But it is a fact which is scarce remembered in the UK today: Britain looks back on World War II as a time of total unanimity which is slightly less than the truth. Now will be the time when Mrs Thatcher's proven ability to ignore carping, and calls to compromise, will be put to the test. Her popularity will not stay at 76 percent throughout the crisis.

The personalities of the leaders of Argentina and Britain are critical elements in the assessments and direction of the conflict. Strangely, a look at history shows women leaders to have considerable strengths in war situations, along with envigorated senses of leadership. Boadecea, in ancient Britain, and Queen Victoria in more modern times, are not unrealistic models for Mrs Thatcher. And nor are Mrs Gandhi and Mrs Golda Meir.

In Argentina, Gen. Galtieri's profile is so obviously that of a leader yearning to make his mark on history that assessments of his potential should have been more clear earlier.

He visited Washington twice in 1981. His first, and open, visit came quickly on the heels of the visit by then-President Viola, one of the first foreign heads-of-state to visit the new President of the United States, Ronald Reagan. From Galtieri's first visit, the Pentagon's Latin American "experts" were full of Galtieri. (Significantly, during 1981, Galtieri closed the border with Chile without first advising then-President Viola: an indication of the man's capability to move precipitously.)

Galtieri's second visit to Washington came in November 1981, a month before he was due to retire (he is 55). This secret meeting was organized by the Argentine Military Attaché in Washington, and led to a series of meetings with US Administration officials during which time he must have sounded them out on possible reaction if he couped against Pres. Viola, with the full support of the military. He also promised the US additional support in combating communist forces in Central America. Argentina was already training El Salvadoran troops, but promised more tangible support, and also promised basing and natural gas to the US.

At his meetings in November, he pleased US officials by his strident anti-communism.

A month later, just before he was due to retire, he couped against Pres. Viola. Once again, his tendency to act precipitously was shown clearly. Had he not acted at that eleventh hour, he would have retired and been forgotten by history. A man of his charisma, ability and ambition could only find this outcome unacceptable.

Subsequently, as economic conditions worsened, he searched for some direction in which to lead Argentina. There is little doubt but that the option to tackle Chile over the nagging Beagle Channel dispute raised itself. It was apparently put to one side, quite possibly because it was clear that Chile's highly-motivated and professional forces would not be so easily beaten, and the conflict would drag on with attendant problems for the Argentine leadership. (Still, after the Falklands invasion, and before the British response, the catchphrase in Buenos Aires was "to-

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day the English, tomorrow the Chileans".)

The Falklands presented themselves increasingly as a way out of an unwinnable domestic political situation. The dispute was once again raising its head — whether with or without Government support is unclear — and the US had declined as late as March to help settle the matter. From Washington, the Military Attaché indicated to Gen. Galtieri that the by-now close and warm relationship between Argentina and the US was becoming so important to Washington that the Reagan Administration would not let the UK respond militarily to an Argentine invasion of the Falklands.

This, indeed, accounts for the extreme care the Argentine Marines went to in order to avoid inflicting casualties on the British. "The Marines were threatened with their heads if they hurt anyone during that invasion," one source told *Defense & Foreign Affairs*. Consequently, the Marines took some severe punishment before the British force surrendered.

Even so, the night before — when the invasion fleet was at sea — Gen. Galtieri began to get the message from Washington that, indeed, the United States would not divorce its old bride — the UK — for its new-found flame. Gen. Galtieri, in seeking to distract Argentine public opinion from the economic disaster which was surrounding them (and causing increasingly dangerous riots), had once again acted precipitously to save his position.

The inevitable conclusion is that, before the conflict is over, he will again act with decisiveness, with a "bold move" to regain the initiative. It is apparent that not all the moves are clearly thought through, or game-planned. Reports indicate that not even all the senior military were informed of the Falklands invasion prior to its execution. And certainly all who were informed were not initially enthusiastic. The sudden revival in the Junta's popularity must have helped cement some of the reluctant on their course.

Argentina's military, while building steadily, was not prepared for sustained conflict with a power such as Britain, and would have prepared otherwise if it had thought that such an eventuality was to have occurred.

The ramifications of the invasion, regardless of the immediate outcome, will continue to be felt in NATO, in South America, and in the whole Western Hemisphere for the next decade. ☆

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The Falklands War: Update 2

The Writing on the Wall: Ongoing Evaluation of the Conflict

by David Harvey, Editor

Some believe history has a way of giving glimpses of the future. Military historians are particularly prone to this: they believe that much of what happened in the trenches of the Great War (World War I) was to be divined from the American Civil War. They also point to the Spanish Civil War of the late 1930s as an accurate harbinger of many of the tactics — and their effects — which were to emerge in full-scale world war in 1939.

The intriguing question for modern conventional warfare analysts is whether the recent war over the Falkland Islands in the South Atlantic is of similar vein. Have we witnessed an outbreak of the kind of high technology warfare which the West, specifically NATO, may one day have to face in Europe? There are interesting arguments for this belief. Unlike other recent battles (in the Middle East in 1967 and 1973, for instance), this was a development which took in most of the phases which modern warfare will encompass. There were three distinct elements of land, air and sea warfare. There was a calibration (for which read escalation) of response by both sides through the mixes of force and technology they chose. There was a transition from a naval imperative to a land one. There was a question of reinforcement, of sustaining conflict. There were questions of training and readiness.

Last month this journal, in a piece by Gregory Copley (*The Falklands War: Update*), took a look at some of the details then emerging. This month there is the opportunity to take another kind of stock. What does the conflict, generally rather than specifically, tell us about some of the things which are today vigorously debated in strategic and tactical circles?

Mass

One of the main debates is about mass versus quality. The Argentine pilots have shown that mass can, and does, have many advantages. In no more than a dozen air strikes, they were able to sink four major (and modern) warships, and destroy a vital logistics ship. They flew old technology aircraft against new technology missiles, with success. The toll on the Royal Navy was high, and would have been still higher if the Argentine Air Force (*Fuerza Aerea Argentina: FAA*) had had more aircraft. One could have projected an argument that sustained mass attacks at the delicate stage of a beachead landing might have prevailed. The same argument can be applied to tanks, anti-tank weapons, ships, indeed any article of lethality.

The USSR, we are often told, can be offset in its huge numbers by superior, more modern technology. The Argentine experience puts that belief up for real question.

Roles and Missions

It is also clear that those who over the years have insisted on breaking air power into definable rôles have been right. Bombers, (*Vulcan B.2s* and *Canberras*), fighters (*Sea Harriers, Super Étendards* and *Skyhawks*) and various categories of light attack aircraft (*Sea Harriers, Pucarás*, and MB.339s) took part at various phases of the operation, yet were successfully coordinated. This is an important lesson because it justifies the activities of the R&D communities which have clustered around their specialities (particularly in the US).

Embedded in this overall view, however, is an indication that those who see a place for multi-rôle aircraft have not completely lost out. The *Sea Harriers*, while assigned to the Fleet Air Arm as air defense aircraft ("fighters"), were also effective as ground strike aircraft against the Port Stanley runway. Argentine *Skyhawks*, designed, conversely, as light attack aircraft were quite good in air-to-air combat (although outgunned by *Sidewinder* AIM-9L missiles carried by their opponents).

In fact, the successes of the *Sea Har-*

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riers as air combat fighters is a sort of tribute to multi-rôle philosophy: the V/STOL concept as applied to the *Harrier* design was for a ground attack aircraft, a flying "bomb truck" for short-range, quick reaction operations. It is flying as a "fighter" in the Fleet Air Arm because of another compromise, the decision to drop big carriers, in favor of "through deck cruisers".

Quality

The defense reformists who today dominate discussion of defense policy in the US will have watched excitedly as the "simple" FAA *Skyhawks* (simple, that is, in relation to the avionics and weapons delivery systems carried) performed so well. The impression remains that even with old aircraft with ordinary 500 lb. bombs it is still possible to wreak havoc. Just how hard those old A-4 *Skyhawks* were to fly was summed up by an Argentine pilot: "Getting the aircraft there in the first place is hard enough. But then we had to carry out the attack, release the bombs manually. It is little wonder we took big losses." Here is the kernel of that particular contribution to the debate: simple, low-tech aircraft may well be effective, but the attrition rate is extremely high.

Likewise, there appear to be some hard trade-off questions facing the missile industry, particularly for air defense. Although the *Sea Darts*, *Blowpipes*, *Sea Wolfs* and *Rapier* SAMs were undoubtedly proven in their first real heat-of-battle trials, many reports spoke of them finding their targets *after* the raiding aircraft had pulled away from their attacks. These spoke of the aircraft which sank the *Ardent*, for instance, having turned for home before it fell to a SAM. Of course, the detailed analysis of this aspect of battle has yet to come in, but it seems to reinforce a central concern by users of low level, quick reaction air defense missiles that they must be better able to hit *incoming* aircraft. Having said that, the attrition of Argentine aircraft to missiles greatly reduced the capacity of the FAA to press home attacks.

Ship Construction

Topic A in the months to come will undoubtedly be ship construction. The lessons arising from the loss of the Royal Navy ships are basically that skimping on defense budgets is false economy. Many ships, particularly the HMS *Antelope* and *Ardent*, were built to Lloyds standards, a term used in the shipping business to mean "civilian standards". These specifications apply to the "fixtures and fittings", such as scantlings, bulkheads, welds, conduits and other aspects of construction. The purpose is, of course, to keep costs down by meeting minimum specifications. The question of materials has already been raised, but it is interesting to note that two trends recently in warship construction may mean that builders will pull away from aluminum and magnesium alloy superstructures, and return to steel, although — as the British aluminium industry has pointed out — all the facts are not yet in.

Had the British ships' superstructures been built of steel, it is possible they would have been able to survive the purely kinetic damage caused by missile and bomb strikes. Had they been able to resist fire better, they would have survived the explosions. Already there is evidence that the rapid spread of fire and toxic fumes may have resulted from cable coverings of a material unsuited to conflict situations.

One of the new developments is a trend towards vertically installed missile launchers (British Aerospace Dynamics, at the start of the conflict, were unveiling just such a fit for *Sea Wolf*). The other is new technology in the production and working of steel. The former would allow designers to put more weight below decks (allowing the use of heavier materials topside), the latter make it available.

The problem is, of course, cost. But as one naval analyst pointed out, the cost of aluminum was at one time $100 per lb., whereas it dropped to 30 cents a lb. because of large scale usage. But problems abound. The US Congress, for instance, recently scuttled funds for research into a new kind of steel, HY-130.

There is also the question of the kind of weapons to give ships once they're built. Many of the RN ships are underprovided with defensive systems. In addition to the exciting prospects represented by anti-missile missiles (the British *Sea Wolf*), there is a case to be made for "last ditch" (gun) defenses like the US Navy's *Phalanx* or the Dutch *Goalkeeper*. Still another lesson may be that long-range air defense missiles (like the US *Aegis*) are just as vital.

These and other questions relating to C³ technologies, surveillance, and the place for cheap, expendable chaff countermeasures against radar-guided SSMs have now all been put into wider context.

Surface Ships

This leads to another issue: the vulnerability of surface ships, and their deterrence value. On both sides of the Atlantic, there seems to be an early tendency to the view that the surface ship, if not exactly doomed, is certainly "post-Falkland" — now questionable, with the main attention on the carrier.

There are some powerful counter arguments. For instance, the ships were essential to the command, control and communications aspects of the battle. They were vital to the provision of fire support in both attacking the runway at Port Stanley and covering troops going ashore. They have obviously provided a protective screen against submarines and they played a big part in countering air attacks. These are powerful arguments, for there is no obvious way any of these could be done without surface ships. The answer, ultimately, will not be to downgrade the surface ship, but to give it enough good weapons to enable it to protect itself.

Indeed, the question of whether the vessels are "viable" in the conflict situation is moot: without surface vessels and naval air power, Britain would have been completely unable to counter the original Argentine invasion of the Falkland Islands and South Georgia Is.

Fire and Forget

It is also clear that the missile age has moved into a new stage of maturity. This has been a testing ground for both stand-off weapons (the Aerospatiale *Exocet*) and systems which feature a large degree of automation (like the Ford/-Raytheon AIM-9L *Sidewinder* and the BAe Dynamics *Sea Wolf* and *Rapier*) which are basically "fire and forget", and are therefore second generation systems.

In one step, a lot of the inbuilt doubt about the value of technology like this has been swept away.

It shows that the defensive envelope *must* be expanded to take account of the stand-off ranges of these weapons. Whether this is done by aircraft or missiles, or both, will be a matter of individual circumstances. A part of this must be the provision of airborne surveillance (early warning), an ingredient lacking all the way through the Falklands fighting for the British, but present for the Argentines who used it to good effect. This will be pointless, though, if it is not integrated with an air defense network. Even small, relatively unsophisticated forces will now have to come to terms with this aspect of defense in depth.

(Paradoxically, these same relatively unsophisticated — for which read low-budgeted — forces now have the ability inflict enormous damage through possession of these second generation missiles.)

It would be a mistake to imply that automatic missile systems will now dominate the battle. According to first-hand reports from the fighting, individual skills

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and talents are still vital. Max Hastings, writing in the London *Daily Telegraph*, June 2, has these illuminating quotes from a British officer: "Those of us blinded by years of briefing on the wonders of modern military technology vaguely assume that most of these death-dealing weapons more or less fire themselves. Not so. This battle is proving to depend overwhelmingly on personal skills, the eyes and courage of the men manning the weapons . . . it is not that our technology is failing, overall it is pretty good. It is simply that it is not infallible, and its fallibility costs ships and lives."

There seems, also, a need to emphasise countermeasures more keenly than has been done up to now. These need not necessarily be expensive jammers or anti-missile missiles, or guns (with elaborate fire control systems). Chaff rockets and infra-red flares are two "expendables" which are both low-cost and very adaptable. In one case, one of the *Exocet* missiles of a pair fired at the Task Force was steered off its course by chaff. The other went on to hit — and destroy — the *Atlantic Conveyor* transport ship.

The West, given its attitudes to technology, should be on guard about pursuing complexity for its own sake. The US, one of the prime offenders against "keep it simple" has been running big simulations on expendables recently. The results have been very positive.

Logistics

There is no doubt that the UK's overall logistics effort was superb, if not brilliant in its design, scope and innovativeness. Before April 2, it's probably true that no-one believed that UK forces could have successfully projected power, crossed a beachead and fought a land battle some 8,000 miles from home. The opposite was probably true, with jokes about the British Army getting to a NATO war on English Channel ferries being standard saloon bar fare.

The effort shows that this area may not be the Achilles heel which observers tend to think it is. The demands of such a long distance war were met with spectacular solutions. The "strategic logistics" was matched at the tactical level by judicious use of helicopters (though with more losses than had been anticipated), landing craft, and a supply chain which was meticulously planned. By contrast, the Argentine Army, only 400 miles from home, was not so well supplied to begin with, and then became severely restricted through blockade. Argentina's logistics effort, even before the arrival of the British fleet, was, in the words of one senior Argentine official, "a shambles".

The arrival of the *Atlantic Conveyor* was also the first sign that containerized warfare is with us. The *Sea* and GR.3 *Harriers* lashed to the top also highlighted a proposal which both the UK and the US have been pushing in recent years: *Project Arapaho*, a way of providing convoy protection with V/STOL aircraft and helicopters from containership decks.

The war also had a vitalizing effect on supply industries which had become apathetic. It rejuventated shipyard skills, craftsmanship, and old-fashioned inventiveness. HMS *Illustrious*, for instance, was nearing readiness for sea as this report was prepared, having been advanced a year in its development cycle. RAF *Nimrods* were fitted with crude, but effective, roof-mounted refuelling probes. The same went for C-130 *Hercules* fitted with hose and reel refuelling systems.

If there's an intangible in strategic planning, it's the ability to make the best of what's at hand. Britain is a NATO force with no heavy airlift of its own, no major civilian sealift force, and few heavy airlift helicopters. Yet it was able to project a force at least as big as the US RDF, whose detractors bemoan the lack of such assets. Nobody can predict exactly how initiative will be applied in war, but in history, as in the Falklands crisis, it has always been a key "force multiplier".

Warning

There were many questions over the accurate gauging of Argentina's hostile intentions, and British Foreign Secretary Lord Carrington resigned because of them (Defence Minister Nott's resignation was rejected).

While there is a danger in criticism through the clear eye of hindsight, it had been obvious for many months that Argentina was close to some sort of crisis. In Chile, for instance, the view was that war with that country (over another group of islands in the Beagle Channel) was imminent. Given the history of the dispute over the Falkland Islands between the two countries, it is surprising that not more attention was paid to the matter. The "raising of consciousness" of the issue by London (with the attendant press publicity) might well have given Argentina pause. An earlier British Government had, during tensions over the Falkland Islands, despatched naval forces to the zone to (successfully) deter Argentine military designs.

But what the issue shows in particular is that there is — and always will be — an element of the unpredictable in foreign affairs. While the Central Front and the South Atlantic are different places, this element of surprise must always been borne in mind. Defense policy should serve diplomacy, and if diplomacy is off guard, then it follows a military response will also be.

Training

After the word logistics, training runs a close second as a tedium producer. This is, perhaps, because both tend to appear to be abstract concepts. In fact they're not, and, as usual, it takes war to point this out. The Argentine forces, apart from questions of personal bravery, were just not of the same combat quality as the British ones. The obvious reason for this is that being part of NATO, the UK has acquired an edge through constant exercises. The threat they face is a real and pressing one, which impacts on their readiness. The need for training has produced an industry of it own, complete with experts and simulators of all types.

Argentina, by comparison, has very little such infrastructure. Its main "external" enemy up to now has been Chile, against whom it has been projecting a good deal of naked aggression. But the Chilean forces are more evenly matched, and for the same reasons: they are not part of NATO. Argentina's main experience of actual combat has been against guerillas, both urban and rural. Because this fight has been fierce and prolonged, it has meant, inevitably that the Army has turned inward, becoming, in effect, a continental one. Interestingly, as first noted by this journal, this may now be on the change.

Ironically, the US had recognized this, and through its otherwise careful policy towards Argentina of attempting to enfold it in a strategy of "containment" against external aggression in the Southern Cone, would have been offering its Army a lot of training. One US source described the Argentine Army as "a 1950s force, unsuited to the new evolutions in tactical warfare which have come from experience of planning for NATO contingencies." Many of the garrison troops, we know, were conscripts, who appear to have lacked motivation. Again, by contrast, the British forces (which are all-volunteer), had experience in actual battle conditions, some in Cyprus, or before that in Korea, or in Northern Ireland.

The performance of the *Fuerza Aerea Argentina* pilots, on the other hand, shows what good training does achieve. The FAA is the most modern of the three service branches, flying equipment which more or less demands advanced training for it to make any sense in the first place. The pilots have been well trained by aerial tacticians from France,

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Israel and the US. The FAA, since World War II when it was modernized by experienced ex-*Luftwaffe* leaders like General Adolf Galland, has consistently scored high marks for its capabilities.

The lesson seems to be that where modern equipment is concerned, we must now assume that skill packages have been provided. Reading across to central Europe, for instance, the progressive modernization of Frontal Aviation in the USSR must mean we can no longer rely on superior skill being the equalizer it once was. The other lesson is that there is no substitute for training, and moves by Western forces to cut down on things like steaming and flying hours and missile practices are false economy.

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Amphibious Operations

The record from the Falklands shows clearly that the greatest danger to forces in combat still comes when they are transitioning from sea to land. The major British losses of ships were concentrated in this period. The operation, involving huge transfers from ship to shore of weapons and supplies was prolonged and extremely dangerous. Argentina's planners obviously knew it, and held back the full weight of the FAA until that time. The danger of this phase of operations — wherever it may occur — can't be overstated. However, amphibious warfare forces consistently have problems obtaining the money they say they need to do the job properly.

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The experiences here must lend weight to the US Marine Corps' constant request for more aircraft to provide both fighter cover and ground attack capability.

The posture of NATO forces is not, on the whole, one of being prepared for amphibious operations. But the area covered by the Alliance offers many places where attack and landings from the sea may be the best option. The events in the South Atlantic may not resemble many of them, but enough of what lies ahead has been revealed for valuable lessons to be learned. One is the rôle played by the Vickers 4.5 inch guns carried on the British warships, a fact which could have a strong effect on the debate about guns and missiles on warships. It could, conceivably, provide a *raison d'être* for the US decision to demothball four heavy battleships.

Aircraft Range

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The war is also bound to have an effect on how designers and planners think about aircraft range. The FAA was severely hampered by its lack of loiter time over targets. Many of the losses were because aircraft failed to make it home to base. The attacker of the *Sheffield*, for instance, while a hero at home, was lost returning to base, presumably because he ran out of fuel. The question of range has many variables. As highlighted here, it has raised the issue of aerial refuelling to new levels. It has also focused the utility of "buddy refuelling" systems in combat aircraft of the same type.

Additionally, many of the older aircraft in world inventories are now coming up for renewal. It is likely that customers, particularly those with problems of "defense in depth" will insist on big increases in payload/range performance. Many of the F-5 type of aircraft will be replaced by US fighters (such as the Northrop F-5G *Tigershark*) which feature advanced technology engines with low specific fuel consumption. This

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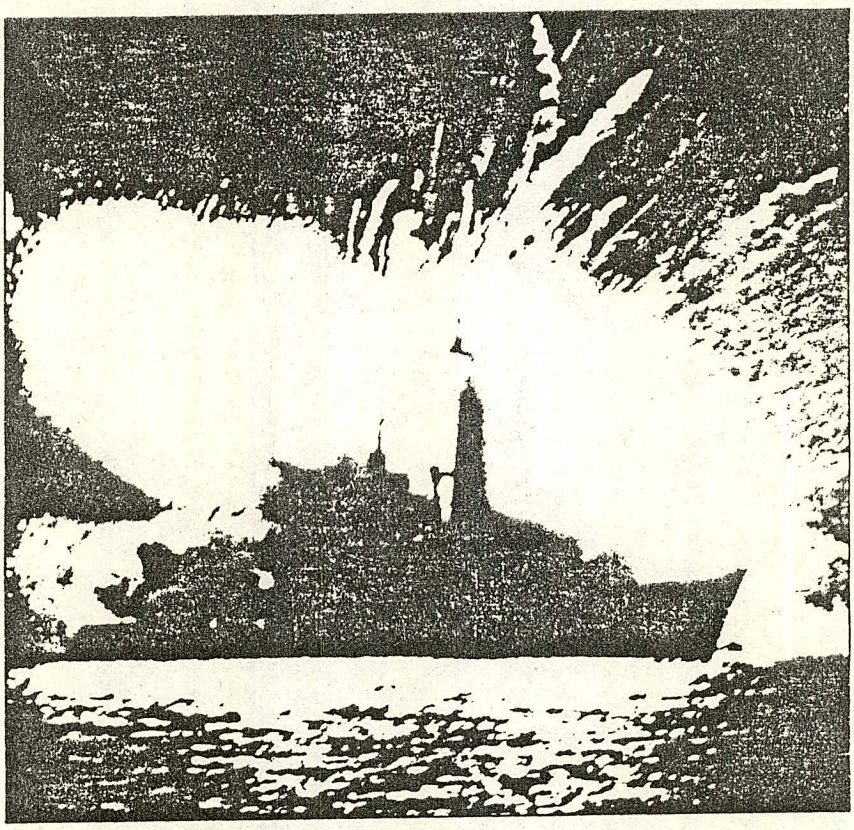

DEATH OF A FRIGATE: HMS *Antelope explodes as a 500 lb. iron bomb detonated when an attempt was made to defuse it after it had failed to explode on impact. It had been delivered by an Argentine Air Force MB 339 strike aircraft during the middle of the Falklands War.*

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could re-write calculations of air force balances throughout the Third World. In terms of the Central Front, the lesson is that too much range is not enough because it it translates directly into loiter time available over the target.

Runways

FINALLY, A NOTE on runway destruction. Neither *Sea Harriers* nor long range attacks by *Vulcan* B.2 bombers seemed to do sufficient damage to the runway at Port Stanley in the early days of the fighting, even though aerial photographs show that the bombs themselves were dropped accurately. The US and the UK were, at one time, cooperating on a special runway destruction weapon, the JP 223. The British are now "going it alone", while the US has unveiled a a new ballistic missile idea for doing the same job.

The French have a system — the Matra *Durandel* — which is also promising. It seems clear, especially given the many runways available to the Warsaw Pact, that there is a continuing problem in this area.

In Summation

THIS HAS NOT been an attempt to examine all the lessons to be drawn from the Falklands crisis, nor does it pretend to be an analysis based on anything but open source information. But the war has stirred public awareness of military technology in a new way and there will be changes in the way some military technology is constructed, procured and deployed as a result. If there is a lingering "issue" it is the question of shipping vulnerability.

But there is one — much broader — conclusion worth drawing and that is that we can never really be certain how the world is going to behave towards itself. In the absence of clairvoyance — an absence common to everyone, whatever rank or office — we can only grasp at whatever history deigns to show us. Military planners are not as remiss as some at learning such lessons, but in times of prolonged peace, myths tend to take over from realities. In the UK, for instance, the Labour Party was presumed generally to be the party of peace. In by-elections during the Falklands war it was beaten badly because it lost "blue collar" support for its pacifist stand.

Wars show us lots of things, but one is that the public mood can be, simultaneously, the most powerful, but the most inscrutable factor of all. ☆

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Defense & Foreign Affairs Daily

UK-Argentina: Falklands Perspective

ONE OF THE obvious ironies of the possible naval confrontation looming between Argentina and the Royal Navy is that both contestants share a number of the same weapons systems.

If a war at sea does break out, this may be the first "modern" (ie missile) conflict to evolve outside the Middle East. It will also be the first to involve all-European systems, and therefore the first not to present a perspective on the latest technological capabilites of the superpowers.

The most "common" element in the orders of battle on either side is French-made: the Aerospatiale *Exocet* anti-shipping missile.

The Argentine Navy has been moving in the past year or so to equip the majority of its vessels with the system. *Exocet* is a well proven missile, with over 1,100 rounds having been sold to 23 customers. Its basic statistics are: range — up to 45 km; guidance — a mixture of inertial plus an X-band active radar seeker for final guidance, this beginning within 15km of the target; warhead — 165kg of hexolite in steel block. The ships fitted with the system in the Argentine Navy are: *Hercules* and *Santisima Trinidad*, both British Type 42 frigates; the *Segui*, *Hipolito Bouchard* and *Piedra Buena*, all ex-US *Allen M Sumner* class destroyers; the *Comodoro Py*, an ex-US *Gearing* class destroyer; and the *Drummond* and *Guerrico avisos*, built in France and originally destined for South Africa but sold to Argentina after an arms embargo. A third ship of this — A69 — class is on order, and was completed in 1981. She may by now have joined the inventory.

The two countries also share the same air defense weapons: the British Aerospace *Sea Dart* and the Shorts *Seacat*. The respective vital statistics are: *Sea Dart* — range: up to 80 kms; altitude range: up to 30,000m; guidance: semi-active radar. *Seacat* — range: up to 5kms; guidance: command to line of sight (CLOS) with some TV auto-gathering.

Argentina has fitted the *Sea Dart* in its Type 42, and the *Seacat* on the *General Belgrano*, its ex-*Brooklyn*-class frigate.

Although the exact composition of the British task group was not known at presstime, what was certain was that the two assault carriers *Invincible* and *Hermes* were making their way to the scene, as was the *HMS Fearless*, an assault ship designed to mount, and control, amphibious operations. The task force is believed to include at least five guided-missile destroyers and 11 missile frigates, with a mix of SAMs and *Exocet* SSMs, the main SSM in the RN inventory.

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One area more clear-cut is that of naval air power. The RN's Fleet Air Arm will be represented in this field by aircraft drawn from three operational *Sea Harrier* squadrons. Some 29 of the aircraft have currently been delivered to the Fleet Air Arm. According to reports the actual number of *Sea Harriers* embarked is more than normal: as many as 24 aircraft *could* be on board (at least 12 are on the *Hermes*). (Normal deployment is eight aircraft with 800 Squadron on *Invincible* and eight with 801 on *Hermes*. However, the extra aircraft will have come from a normally shore-based group, 899 Squadron from Yeovilton). This, in fact, is the first Fleet Air Arm action since the scrapping of the RN's "big carriers" and much is unknown and untested about the V/STOL aircraft.

There must be Admirals in Whitehall who regret the change in priorities of the 1970s. A squadron of *Buccaneers* armed with *Martel* air-to-surface missiles, for instance, would have been invaluable in this situation. The *Sea Harriers* have not yet been fitted with such a weapon, though the *Sea Eagle* was recently ordered into production. The British thus find themselves with a "missile gap" as far as air-to-surface missiles go. The likely opposition — AMD-Breguet *Super Etendards* operating off the Argentine carrier *Veinticinco de Mayo* are equipped with an ASM for use against ships, the Aerospatiale AM 39, an air-launched version of the *Exocet*.

The British argument for this, however, will be that it will be able to outfight the Argentine Naval Air Arm fighters. At least six of the 14 AMD-Breguet *Super Etendard* naval fighters, ordered from France in 1980, are now embarked. One source indicated the Navy waited for full pilot qualification — completed last week — before mounting the operation.

(Other reports, including one in the Argentine newspaper *Noticias Argentinas*, Buenos Aires, April 1, said the carrier has a full complement of A-4Q *Skyhawks*.

The British pilots expect to be able to deal with the *Super Etendards* and *Skyhawks* simply by superior air-to-air tactics. The *Sea Harriers* are fitted with the latest version of the *Sidewinder* AIM-9L, an "all-aspect" short range air-to-air missile.

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According to some sources the *Super Etendards* are fitted with a similar "state of art" AAM, the French Matra *Magic* R 550. This missile is reported to have performed well against Iranian F-4s for the Iraqi Air Force in recent months.

It is not clear whether the Argentines could use the 4,000-foot airstrip at Port Stanley. US Marines sources familiar with the A-4 *Skyhawk* said the strip is *just* long enough, but that it would take at least six weeks of intensive training to mount air operations from here. The same would go for Argentine Air Force *Mirage IIIs*. Nor is it clear that the Argentines could mount successful air operations from the Argentine mainland. The nearest airfield is Rio Gallegos, some 500 statute miles from the Falklands themselves, making jet fighter-bomber operations marginal, if not impossible.

This raises the question of aerial refueling. It is understood the Argentines have been in the commercial market within recent months looking for an inexpensive "hose and reel" attachment, perhaps for use from its C-130 *Hercules*. But most analysts would not, at this stage, expect either the Air Force, or the Naval Air Arm to demonstrate such a capability.

The same goes for combat air patrol flights from the Mainland. While not impossible, pilots will not have too much time on station.

However, the *Sea Harrier* pilots are counting on a number of advantages to overcome a disadvantage in numbers. One is that the Ferranti *Blue Fox* air-to-air radar is superior to the French Thomson-CSF *Agave* radar reported to be on the *Super Etendards*. The other is the availability of the *Sea Harrier's* Vectoring in Flight (VIF), a way of maneuvering the aircraft by use of its variable geometry nozzles.

Nobody is sure, of course, of what will *actually* happen when — and if — the two forces are put on a collision course. But one clue may have come from the RN's former First Sea Lord and former Chief of Defence Staff, Admiral of the Fleet Lord Hill-Norton. He told the BBC's *World Service* that there were three stages to a modern naval conflict. The first, he said, was the use of submarines. The second would involve the use of air power. Finally, it would come, he explained, to action between ships.

It seems obvious, however, that the aircraft carrier would be the key target in the opening rounds.

Also interesting was the likelihood that the RAF would be operating *Nimrod Mk IIs* out of Ascension Island (now operated by USAF, but obligated by agreement to provide facilities to Britain) for controlling the conflict scene. Ascension would also be the likeliest base for transport aircraft, but at 3,500 miles from Port Stanley it is beyond the range of fighter aircraft without in-flight refueling. There has been some talk of using the former British base at Simonstown in South Africa, though for political reasons this may be ruled out.

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Simonstown is as close as Ascension, and a far better base.

Missiles, Lord Hill-Norton said, will be decisive in such a battle. As far as tactics for the Falklands situation go, it appeared the Admiralty was veering towards a blockade approach. This would create what he referred to as a *cordon sanitaire* around the islands themselves. Inside the *cordon* the RN would "sink" the Argentine ships. Then presumably, it would be a case of cutting off the occupying forces supply lines.

But, as the days before crisis ticked away, there was considerable hope that conflict could be avoided. The US was said to be "actively involved" in trying to gain leverage on Argentina via the OAS (Organization of American States). How much the rhetoric in both Britain and Argentina played a part in their respective leaders' appreciation of the crisis was not certain.

It seemed, though, that the Argentine Navy faced a hugely superior naval force, both in numbers and degree of modernization. Even though there may be an element of "feint" in the announced numbers of RN ships sailing to the scene, it is difficult to see how the Argentine Navy can hold out against the menacing synergy presented by modern weapons operating from modern platforms, under state of the art methods of command and control.

One of the many ironies in the situation is that the Argentine Navy is currently undergoing a radical modernization. But most of its new ships are either still on the slips or the drawing boards. Much of the weaponry to put on them could, up to now, have been expected to come from the UK. Right up to beginning of hostilities, Argentine planners were in the UK. They had expressed strong interest in the *Sea Harrier* carrier concept, and were said to have been recent guests of British Aerospace Dynamics' Bristol naval weapons facility. These doors would now seem to be closed.

Finally, if the RN needs it, there is one ally on the scene which it can safely count on: Chile. That country had been braced for an attack on its islands in the Beagle Channel for some months. Now, it appears, the pressure here was merely a feint for the move into the Falklands. Warnings that the Argentines were in belligerent mood have been emanating from Santiago for many weeks. The Chileans thought the aggression was aimed at them, and will now be grateful for the diversion. Buenos Aires, in fact, has broken one of the main tenets of warfare and allowed an enemy at its back as well as one three thousand miles (by now) away across the Atlantic. ■

ARCHIVO GENERAL DE LA ARMADA
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N° 19

Defense & Foreign Affairs Daily

EDITION: April 19, 1982

US: Jet Engines for Argentina?

SURPLUS JET ENGINES recently sold to private US firms are intended for delivery to Argentina, the *Daily* has learned.

In March the Defense Surplus Sales Office in Ogden, Utah, in response to earlier bids, sold the aircraft engines — which could be used in Argentina's Air Force and Naval Aviation McDonnell Douglas A-4 *Skyhawks* — to two US commercial firms. One lot of 32 J-65W engines were sold to Turbine Allied Corporation of Washington, New Jersey, and 12 J-65W-5 engines were sold to Air Technology Incorporated of Hackensack, New Jersey. When contacted, officials of Turbine Allied had no comment on the ultimate destination of the 32 J-65W engines, which the company received on April 8. An Air Technology, Inc. spokesman said that no decision had yet been made on a resale of the 12 J-65W-5 engines delivered to his company on March 23, and that the engines would most likely be sold for spare parts. Other sources confirm that the 32 engines bought by Turbine Allied, at least, are intended for the Argentines.

Because of its age (it went out of production in 1959) and diverse non-military applications, the J-65 jet engine is not on the munitions control list of the US State Department. The Department of Commerce has the power to restrict export of the engines through denial of a validated export license.

Because the bidding for the sale of the engines — described as "used and in fair condition" — was announced well before the March 11 sale and the sale itself was made more than two weeks before Argentina's invasion of the Falkland Islands, sources emphasized that the sale does not reflect a US move in response to the Falklands affair. But since Argentina's *Skyhawks* are a key element in its defense forces, Buenos Aires' interest in purchasing the engines at this time may take on new significance. ■

ARCHIVO GENERAL DE LA ARMADA
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N° 29

Defense & Foreign Affairs Daily

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Brazil: Arms To Argentina, Algeria

BRAZIL IS EXPECTED to sell major quantities of arms to Argentina, according to reports in both Buenos Aires and Sao Paulo. A major arms deal with Algeria may be imminent as well.

According to reports, Argentina has an extensive shopping list for Brazilian weapons. On the list are the Embraer EMB-111 *Bandeirante* maritime patrol aircraft, Embraer *Ishai*-35 and -70 air-to-air rockets, Engesa EE-9 *Cascavel* armored cars, various types of ordnance including small arms, anti-aircraft, and artillery ammunition, as well as grenades, plus assorted non-lethal military equipment. Details on quantities or prices involved in the sale will be known when the deal is formally announced by the Brazilian Government.

Brazil and Argentina cooperate extensively in the field of nuclear power, and Brazil has supported Argentina's claim of sovereignty to the Falkland Islands.

Reports in Brazil say that Algiers will sign an agreement with Brazil for the purchase of $410-million worth of arms over a three year period. The deal is likely to include armored cars, probably the Engesa EE-9 *Cascavel*. The Algerian Defense Ministry has already tested and approved Brazilian armored vehicles.

The Brazilian and Algerian militaries resumed contacts last year. Relations between the two countries were strained in the 1960s and early 1970s when Algeria hosted Brazilian political exiles, but a rapprochement between the two Governments is currently underway. ■

ARCHIVO GENERAL DE LA ARMADA
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N° 21

Defense & Foreign Affairs Daily
A DECADE OF LEADERSHIP 1972-1982

EDITION: May 4, 1982

Israel/Argentina: New Arms Deliveries?

THE BRITISH FOREIGN OFFICE called in Israel's ambassador to the United Kingdom April 27 to ask for clarifications of reports of Israeli arms deliveries to Argentina since the beginning of the Falkland Islands crisis. When the British action was made public, Israel's Foreign Ministry summoned the British Ambassador to Tel Aviv, Patrick Moberley, to complain that Israel was "astonished" that the meeting had been made public and that the publicity encourages "unfounded rumors" which distort Israel's real position in the crisis. The Israeli statements did not, however, deny that arms have been delivered.

Israel has long concentrated on increasing its military sales to Latin America, and Argentina already has in inventory two squadrons (26 aircraft) of *Dagger* (Israeli designation *Nesher*) aircraft, the Israeli-built version of the *Mirage III*. There are unconfirmed reports the *Daggers* carry the Israeli-made *Shafrir* air-to-air missile. The Argentine Navy has four Israeli-built *Dabur*-class coastal patrol craft which mount guns. There has been some speculation Israel might supply the *Gabriel* anti-ship missile to the Argentines. One British report suggested that Israel had supplied missiles for Argentina's helicopters since the crisis began; Israel's only domestically-produced air-to-surface missile is the relatively new *Luz*, and there have been no previous indications of export sales.

Observers thought it unlikely that Israel would transfer US-built equipment to the Argentines, and the US "tilt" towards Britain has made it unlikely that the US would approve any sale of the Israel Aircraft Industries *Kfir C-2* fighter, which carries a US-made engine. ■

ARCHIVO GENERAL DE LA ARMADA
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N° 22

Defense & Foreign Affairs Daily
DECADE OF LEADERSHIP 1972-1982

EDITION: May 7, 1982

Argentina: Now Israeli Advisers?

IN THE WAKE of earlier reports that the United Kingdom has protested reported Israeli arms deliveries to Argentina since the Falklands crisis began (see the *Daily*, May 4), sources have told the *Daily* that new Israeli advisers have arrived in Argentina in recent weeks as well.

It was not known what the advisers' mission might be. Argentina's *Dagger* aircraft, *Dabur*-class patrol boats, *Gabriel* ship-to-ship missiles, and (possibly) *Shafrir* air-to-air missiles are all Israeli-made.

Western sources also believe that the number of *Daggers* in Argentina is larger than the 26, deployed in two squadrons, previously believed to be present. The real number, it is now being said, is at least 36 and possibly as high as 46. It is not clear whether these additional *Daggers* represent a new delivery from Israel or simply older deliveries not made public. The *Dagger*, which was called the *Nesher* in Israel, is an Israeli version of the *Mirage III*. ■

ARCHIVO GENERAL DE LA ARMADA
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N° 23

Defense & Foreign Affairs Daily
A DECADE OF LEADERSHIP 1972-1982

EDITION: May 10, 1982

Israel/Argentina: No New Arms Deals

FOLLOWING A WEEK of controversy and British protests over Israeli arms deliveries to Argentina since the outbreak of the Falklands crisis (see the *Daily*, May 4) and reports that Israeli advisers have also arrived in Argentina since the confrontation began (see the *Daily*, May 7), Israeli Foreign Minister Yitzhak Shamir now says that Israel, in order to avoid taking sides in the conflict, will sign no new arms agreements with Buenos Aires for the time being.

Israeli reports made it clear, however, that all previously contracted-for arms deals with Argentina will be honored. Though the details of such agreements are not known, that announcement seemed to blunt Shamir's statement if the latter was intended to answer British complaints, since it did not rule out continuing deliveries of outstanding orders.

Falklands: Weapons Proving Ground

THE MILITARY CLASHES that have so far taken place in the Falkland Islands crisis have provided the first live combat tests for several advanced weapons systems, as well as shown the versatility of some well-used systems in performing unforeseen tasks.

More accurate or detailed information may later be available on exactly which systems have been used and how they have performed, but on the basis of current public knowledge the first combat use of the following weapons may be noted:

► The Aérospatiale AM.39 *Exocet* air-to-surface anti-ship missile launched from the Dassault-Breguet *Super Etendard* naval strike aircraft. A single radar-guided, high-explosive *Exocet* reportedly destroyed the British destroyer *Sheffield* after being launched from a range of 20 miles.

► The Marconi Mk 24 *Tigerfish* torpedo, launched from a Royal Navy nuclear-powered attack submarine. This torpedo reportedly sank the Argentine cruiser *General Belgrano*; the number of torpedoes used was variously reported as one or two, with a possible miss.

► The British Aerospace *Sea Skua* air-to-surface anti-ship missile. *Sea Skuas* were reportedly launched by Royal Navy Westland *Lynx* helicopters against two Argentine patrol craft, with the UK claiming to have sunk one boat and damaged the other. The *Sea Skua* was rushed into action, not having yet been put into Royal Navy inventory.

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► The JP 233 cratering bomb. This weapon reportedly rendered the Port Stanley airfield unusable through its cratering action.

Two weapons systems were used by the British in an improvised fashion, reportedly to good effect:

► The venerable RAF *Vulcan* bomber, long a part of the UK's strategic nuclear force, has taken part in conventional bombing attacks on the Port Stanley airfield. Flying from a base on Ascension Island and refuelled by *Victor* aerial tankers, the *Vulcans* reportedly performed well as conventional bombers.

► The FFV *Carl Gustav* anti-tank guided missile was used in an especially novel fashion. This armor-piercing missile was used by units of the Royal Marines against the Argentine Type A69 aviso *Guerrico* as it was taking part in the Argentine assault on the South Georgia Islands port of Grytviken. The ship was reportedly severely damaged. ■

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Nº 251

Defense & Foreign Affairs Daily

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Argentina: War Evaluation Continues

ARGENTINE POLICYMAKERS are evaluating the first lessons of the country's conflict with the United Kingdom, sources within the Argentine Armed Forces Joint Staff told *Defense & Foreign Affairs Daily*.

The sources indicated that Argentina would, presumably when the conflict subsided, re-vamp the country's armed forces from a "continental force" to a "quick reaction force". The decision to do this was reportedly made just more than a week ago, the sources said. Part of the input in this decision was what Argentine senior officers called "the comedy of errors" in the movement of Argentine troops and logistics support to the Falkland Islands and South Georgia Island.

The sources confirmed that Argentine officials were, late last week, still determined to confront the British Armed Forces, and were "anxious for a decisive conflict".

The reports indicated that British pressure was not, at least as far as the senior Argentine military was concerned, having any success in leading to a diplomatic settlement.

Several sources indicated that a number of highly-trained volunteers were offering to "press home" attacks on British naval units. ■

ARCHIVO GENERAL DE LA ARMADA
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N° 26

Defense & Foreign Affairs Daily
A DECADE OF LEADERSHIP 1972-1982

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UK: Nimrod Aerial Refueling Adaptation

BRITAIN HAS FITTED *Nimrod Mark II* ASW and reconnaissance aircraft with an aerial refueling capability in a "rush job" carried out at British Aerospace's Manchester factories, giving the *Nimrod* the range needed to patrol the Falkland Islands from the air base on Ascension Island. The lack of over-the-horizon surveillance capability is believed to have made it possible for an Argentine Navy *Super Etendard* fighter to fire its *Exocet* missile at the HMS *Sheffield*. The aerial refueling capability allows the *Nimrod* to be refueled from *Victor* aerial tankers.

In other Falklands developments, the *Daily* has learned that the British Fleet Air Arm *Sea Harrier* shot down early in the fighting had previously been involved in trials of the *Sea Eagle*, the Royal Navy's new anti-shipping missile. This has led to speculation that the aircraft might still have been wired for the *Sea Eagle* system when shot down, and that vital intelligence data on the system might thus be compromised.

ARCHIVO GENERAL DE LA ARMADA
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N° 27

Defense & Foreign Affairs Daily
A DECADE OF LEADERSHIP 1972-1982

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UK: Falklands Developments

EARLY LINES OF inquiry into the loss of HMS *Sheffield* to an Argentine AM 39 *Exocet* missile are focusing on radar performance in extremely bad weather, according to sources. First reports indicate that the *Sea Dart* SAM tracking radar on the Sheffield and perhaps the air defense radars on nearby ships were unable to function properly in the 60-foot-plus waves buffeting the task force at the time of the Argentine attack. If true, these reports suggest that such wave heights had not been anticipated.

It is also understood that British Aerospace is about to receive an order for an additional 20 *Sea Harriers* from the UK's Ministry of Defense. BAe denies any knowledge of such an order. The order for additional aircraft is reportedly circumventing many of the normal bureaucratic bottlenecks, although with a lead time of three years on such an order there is no possibility that any of the new *Sea Harriers* could be brought into service for the Falklands conflict. An order of 20 would bring the total Fleet Air Arm's buy of *Sea Harriers* to 49.

The MoD is also reported to have started asking "difficult" questions about delays in getting the Mk 3 AEW *Nimrod* aircraft into service. The questions stem from a feeling around Whitehall that the planes' long range surveillance radar would have prevented the *Sheffield* sinking. ■

ARCHIVO GENERAL DE LA ARMADA
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N° 28

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Defense & Foreign Affairs Daily

A DECADE OF LEADERSHIP 1972-1982

Falklands War: Diplomatic Impact on US

DESPITE WIDESPREAD CONCERN that serious military conflict in the Falklands would have long-lasting adverse effects on US relations with Latin America, many analysts believe that any such diplomatic fallout will probably be temporary and limited in scope.

Barring a worst-case development in which there were enormous Argentine losses or a British attack on the Argentine mainland, Latin American countries, with the possible exceptions of Peru and Venezuela, are unlikely to significantly distance themselves from the US for long, according to observers of the situation.

One unofficial Washington observer called the support of many Latin American nations for Argentina "paper thin," a fact attributable to Argentina's traditional aloofness from its regional neighbors, the controversial nature of the Argentine military government, and a recognition that Argentina precipitated the crisis through unprovoked military action. Not perceiving any true national interest in Argentine control of the disputed Falkland Islands, most Central and South American governments will base their longer term treatment of the US on more important practical considerations.

In the view of most analysts, Chile, a traditional rival of Argentina, with whom it has a century-long territorial dispute of its own, is almost certain to be satisfied with US involvement in the Falklands crisis. Just prior to the invasion of the Falklands Argentina had been increasing pressure on Chile over their Beagle Channel dispute. Despite Chilean offers of sea-rescue assistance for Argentine sailors and a discreetly neutral Chilean stance in the crisis, Chile must welcome the UK's firm response to Argentine "recovery of national territory" and any chastening effect this might have on Argentine military ambitions.

Brazil has given verbal support to Argentine claims of sovereignty in the Falklands, but the recent visit of Brazilian President Joao Figueiredo to Washington in the midst of the crisis seems to demonstrate that Brazil will not sacrifice currently improving relations with the US for a show of Latin American solidarity. Brazil's sale of arms to Argentina represents a long-sought penetration of a market that had been closed for years, and probably does not signify any Brazilian commitment to the Argentine cause, say observers.

Among the major Latin American countries only Peru and Venezuela have seriously supported Argentina, and observers feel that US relations with those two governments could suffer as a result of US backing for the UK. Ironically, both Peru and Venezuela are working democracies with traditionally strong ties to the US, and up until the crisis Venezuela had considerable disdain for the military government in Buenos Aires. Both

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countries have been enjoying increasingly good relations with the US in the past several years.

Official US sources predict privately that Venezuela's reaction to US support for the UK will be shaped by the outcome of any fighting in the Falklands as well as by the extent of US involvement. Anti-British feelings in Venezuela can be traced to Venezuela's claim to territory in the former British possession of Guyana, claims which have been emotionally aired during the Falklands crisis.

US officials are unsure how strong anti-US reaction could become, but point out the size and importance of US-Venezuelan ties as limits to any damage to bilateral relations. The US is Venezuela's largest oil customer and trading partner, and is in the process of selling Venezuela 24 US-made General Dynamics F-16 fighter aircraft (see the *Daily*, Friday, May 14, 1982). These issues may not be affected by any Falklands fallout. But in the view of US officials progress in other areas, such as cooperation with the US on Central American strategy and negotiations over US claims arising from Venezuela's 1976 oil industry nationalization, might be hampered.

Peru also has strong and improving ties to the US, and finds itself torn between traditionally friendly Argentina and the superpower whose economic assistance is vital. US officials say that a serious deterioration of relations is doubtful, that Peru simply has too many practical ties to the US to allow a long-term diplomatic chill to take place.

Central America's most important country, Mexico, has given perfuntory support to Argentina's historical claims of sovereignty in the Falklands, but like much of Latin America has done little else. Mexico's relations with the US turn primarily on long-standing bilateral issues, especially immigration policy, and increasingly on the two countries' divergent approaches to the instability in Central America. Never close to Argentina, Mexico will not let a Falklands war seriously affect relations with the US, according to analysts.

Central American countries, in most cases very dependent on US aid, would be most reluctant to let the Falklands issue affect their US ties, in the view of most observers. While Guatemala's claims on ex-British Belize have caused it to vocally support Argentina, any break with the US seems most unlikely. As for Cuba and Nicaragua, two other strong backers of Argentina against the UK, their relations with the US are determined by critical bilateral issues beyond the scope of the current crisis.

Analysts feel that despite any short-lived difficulties caused by fighting between Argentina and the UK, Latin America's future relations with the US will continue to be determined by each country's practical and historical ties with their most important neighbor. ■

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N° 30

Defense & Foreign Affairs Daily

A DECADE OF LEADERSHIP 1972-1982

EDITION: June 4, 1982

Brazil: More Arms for Argentina?

REPORTS IN BRAZIL indicate that Argentina is still shopping for Brazilian arms. The most recent Argentine interest is in Brazilian SS-60 surface-to-surface rockets, known as FGT X-20 rockets in the Brazilian military. Argentine officials reportedly have discussed such rockets with the Brazilian manufacturer, Avibras. The SS-60 can carry an 80 kilogram explosive charge 65 kilometers.

The range of the SS-60 is too limited for use against British forces in the South Atlantic, but would add offensive strength to Argentine ground forces for operations on the South American continent. This is significant for neighboring Chile, which has long feared that Argentine claims on what is currently Chilean territory in the extreme south may erupt into armed conflict. ■

Argentina: New Grain Customers

FACED WITH an apparently open-ended European Economic Community trade boycott, Argentina is turning to new customers in order to sell grain, its largest export and chief foreign currency earner.

The Soviet Union, the major buyer of Argentine grain, has reduced its purchases this spring, despite reports of severe domestic food production problems. Some observers have speculated that the Soviets are waiting for Argentine economic distress to worsen in order to drive a better bargain on the grain it needs. Observers also say that the Soviet Union may want to barter grain for weapons, thereby saving scarce foreign exchange and gaining a political/military foothold in South America.

Czechoslovakia recently agreed to purchase 500,000 tons of wheat from Argentina, according to reports, and another 1.5-million tons of grain are to go to Japan, Venezuela, Spain, Iran, and Taiwan. ■

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A DECADE OF LEADERSHIP 1972-1982

Defense & Foreign Affairs Daily

Falklands War: Some Updates

AS THE LESSONS of the Falkland Islands War become more apparent, the *Daily* has learned of several developments worth noting:

► Anglo-French ties were strengthened considerably by the provision by France of AMD-Breguet *Super Étendard* and *Mirage III* fighters for RAF and Royal Navy pilots to develop their air combat skills against in their BAe *Harrier* and *Sea Harrier* aircraft.

► The British container ship *Atlantic Conveyor*, devastated by an Argentine AM.39 *Exocet* air-to-surface missile, was being deliberately postured as a "carrier look-alike", in order to act as a decoy to protect HMS *Invincible* and HMS *Hermes*. The merchantman had a screen of escort warships in order to project the same radar silhouette as a carrier task-force. The deception worked, but at the cost of the merchant vessel. Also reported was the fact that one of the escorts did release a chaff round which diverted a second AM.39 which had been fired. There are also reports that the hulk of the *Atlantic Conveyor* is still in the area, being towed from place to place as a decoy for the carriers.

► The main focus of concern in the British Ministry of Defence over the loss of HMS *Sheffield* centers around the fact that while the ship is using its satellite link with London it must turn off *all* of its RF transmitters and sensors, ie: it must completely blind its sensors and ECM. This is what happened when the AM.39 hit *Sheffield*. This major systems planning failure is receiving top priority at MoD, as are other already identified shortcomings, including toxic fume/flammability questions on internal ships' cables, the deficiencies in the Marconi radars, poor integration (by the Admiralty Surface Weapons Establishment) of the otherwise excellent *Sea Dart*, and so on.

► Two Euromissile *Roland II* SAM systems are ashore with Argentine forces at Port Stanley, but one system is known to be defective. *Tigercat* SAMs are also ashore. ■

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Defense & Foreign Affairs Daily

A DECADE OF LEADERSHIP 1972-1982

EDITION: June 18, 1982

US: British Command System Praised

THE OUTGOING CHAIRMAN of the US Joint Chiefs of Staff said that a reorganization of the British command structure a few months ago "significantly affected" the course of battle in the Falklands.

General David Jones, who retires at the end of this month, is promoting plans for re-organization of the Joint Chiefs in the US. "The Brits cleaned up their structure, and it paid off in terms of lines of authority and integration of command," he told an audience at the Press Club in Washington DC.

Wistfully, in view of the array of Congressional, media and other forces lined up against the reforms, Gen. Jones said that a simple memo "passed up to and initialed by Margaret Thatcher," had been enough to bring about the British changes. "In fact," he said, "if asked what needs to be done first in getting a new Joint Chiefs blueprint approved here, I'd say we should have Parliamentary Government."

He cautioned against drawing "quick lessons" from both the battles in the South Atlantic and Lebanon. "The main lesson from the Falklands is that we should always be ready for the unexpected."

ARCHIVO GENERAL DE LA ARMADA
FOLIO
N° 33

Defense & Foreign Affairs Daily
A DECADE OF LEADERSHIP 1972-1982

EDITION: June 22, 1982

UK: MEL Develops Heliborne AEW

BRITAIN'S MEL CORPORATION, a subsidiary of the Philips Group, is reportedly in the advanced stages of development of a helicopter-mounted airborne early warning (AEW) system for naval use. The system had been under development before the Falklands crisis began, but the conflict highlighted dramatically the need for AEW protection for the fleet.

MEL had until recently been in severe financial straits, but has just undergone a management and organizational restructuring which resulted in the company shedding 800 employees and taking on a new management team. A new managing director, Kennenth Bacon, has joined the company from Fairey, and a new marketing director, Michael Whitman, is joining MEL from Ferranti. The company is now profitable.

MEL is the major electronic warfare supplier to the Royal Navy. The Ministry of Defence accounts for some 80 percent of the company's business, although major, but unspecified, contract work is currently pending with the US.

The Falklands crisis has significantly affected MEL's business. Company officials note that since the conflict started, MoD orders to MEL have added 10 to 15 percent to the company's sales for the next two years. More orders are expected as a result of the conflict. ■

ARCHIVO GENERAL DE LA ARMADA
FOLIO
Nº 34

EDITION: June 24, 1982

A DECADE OF LEADERSHIP 1972-1982

Defense & Foreign Affairs Daily

UK: Rapier Performance Assessed

TOP-LEVEL BRITISH sources are delighted and apparently surprised by the kill-rate achieved by the British Aerospace *Rapier* SAMs in the Falklands war. The *Rapiers* were in operation within 30 minutes of being lifted off their delivery ships at San Carlos beachhead. In the first salvoes a kill rate of 30 percent was achieved (ie: three out of 10 missiles hit and destroyed their targets). But within "a very short time", the kill rate rose to 80 percent and stayed constant at that for the remainder of the conflict. "The efficiency is awesome," one top UK official said. ■

ARCHIVO GENERAL DE LA ARMADA
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N° 35

Defense & Foreign Affairs Daily
A DECADE OF LEADERSHIP 1972-1982

EDITION: July 8, 1982

Latin America: Countries Shun Unitas

US support for the UK in the Falklands War has begun to take its toll on inter-American military cooperation. This year's *Unitas* naval exercise, in which eight Latin American countries normally participate, will have at most only three foreign navies joining the US Navy. Argentina, Brazil, Peru, Venezuela, and Ecuador have declined to participate this year. Only Colombia and Chile have agreed to take part, and Uruguay has not yet decided.

Chile, whose officially neutral stance did not conceal pro-British sympathies, will send four ships and a submarine to the exercise. *Unitas*, which involves six US ships and 2,000 personnel including US Marines, is a two-ocean exercise that begins in the Atlantic and works its way around Cape Horn into the Pacific. ■

ARCHIVO GENERAL DE LA ARMADA
FOLIO
Nº 36

EDITION: July 14, 1982

Defense & Foreign Affairs Daily

UK: More on Falklands Fighting

MORE INFORMATION LEAKING back from the war in the Falklands suggests the overall performance of *Harriers* in the conflict reached extremely high levels.

One source told the *Daily* that the RN *Sea Harriers* and the RAF *Harriers* which later joined them, averaged an availability rate of 90 percent.

This was achieved despite a lower serviceability rate of 80 percent, implying that pilots were flying sorties with less than completely combat-ready aircraft.

These figures, if later substantiated by the Ministry of Defence (which is compiling a detailed report on events during the war), will be considered outstanding. USAF, for instance, is striving to maintain an overall readiness rate of about about 70 percent for its fighter aircraft, while the US Navy rate for its carrier-borne F-14s is slightly lower than that.

What will be of great interest will be the "operational margin" suggested by the *Harrier* figures. They suggest that combat missions can still be flown with equipment failure rates which go above the official limit. However, details of these will be needed before broader conclusions can be drawn.

The *Harrier's* makers — British Aerospace Aircraft Group — received a message from the captain of HMS *Hermes* congratulating them on the construction of the aircraft at the height of the battle.

Meanwhile, initial assessments show that the *Harriers* scored 31 confirmed "kills" during the fighting. The actual figure may be slightly higher, with 37 aircraft believed to have been shot down by the V/STOL jets. Argentine aircraft fell mainly to *Sidewinder* AIM 9L AAMs, though the aircraft's 30mm cannon also accounted for some hits.

RAF *Harrier* GR Mk IIIs, which are normally used for strike and reconnaissance missions in Europe and therefore not in need of air-to-air missiles, were fitted with *Sidewinders* during a week of intensive work at the makers' factories. RAF pilots converted to using the missile in about eight days, sources said.

An interesting psychological twist may have developed: although not confirmed officially, it is believed some pilots preferred to use their guns rather than the unfamiliar missile system during the heat of the battle.

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No official information has yet been received on the use of the *Harriers'* VIFFing, or vectoring in forward flight, capabilities.

It appears that the highest scoring pilot was Cmdr. Nigel "Sharkey" Ward, Fleet Air Arm pilot, who has been credited with seven kills.

His score is five *Mirage* or *Dagger* fighters, one A-4 *Skyhawk*, and one C-130 *Hercules*.. The latter was hit by Ward during a bombing run against ships in the Task Force.

His reported comment afterwards is perhaps testimony to the toughness of this aircraft. According to one account he reported that having fired his guns at the C-130 and "sawed' most of one of the wings off, the aircraft had kept flying. At that point, he said, he decided it was time to fire a *Sidewinder* missile into the C-130 to prevent it from pressing its attack. ■

Argentina: Air Force Effort Described

ARGENTINE AIR FORCE Commander Lt. General Basilio Lami Dozo recently revealed some details of his service's operations during the Falklands War. Many of his figures differed with British reports on the results of the fighting.

Lami Dozo said that only 80 aircraft were involved in operations against the British forces. He said that 505 combat missions were planned and 445 actually were launched. Of the 445 missions actually undertaken, 312 reached their objective, according to Lami Dozo. He listed the reasons for aircraft failing to reach their targets as refuelling difficulties, bad weather, or mechanical failures on the aircraft en route. He did not mention interception by British *Harriers* that were sent up to break up Argentine formations as they approached the islands.

Lt. General Lami Dozo's figures for Argentine Air Force losses during the war are sharply at variance with published and privately discussed British numbers. Lami Dozo said that Argentina had lost 32 *Pucara* counter-insurgency aircraft, one C-130 transport, and a *Learjet*. Without clarification, he said that 11 aircraft were shot down by the British over Port San Carlos, the site of the initial British amphibious landings. Apparently without including it in the loss totals, Lami Dozo noted that a *Canberra* bomber had been downed on the final day of the conflict. Lami

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Dozo's figures did not include losses of naval aircraft, accounting for some of the discrepancy between his and British estimates of Argentine losses.

British accounts of Argentine air losses, by contrast, give a far higher figure. The number of Argentine fixed-wing aircraft shot down by British forces is estimated at between 62 and 68, with 31 falling to ship- or ground-based missiles and anti-aircraft batteries and 31 to 37 shot down by *Harrier* aircraft (see accompanying story in this *Daily*). In addition, several Argentine aircraft were destroyed on the ground at Pebble Island, Darwin, and Port Stanley, and a number of intact and partially damaged helicopters and *Pucaras* have been photographed at Stanley following the Argentine surrender there.

Another factor, not discussed by Lami Dozo, could account for even higher Argentine air losses. This is the possible failure of Argentine aircraft to reach their mainland bases following their attacks on the islands due to exhaustion of fuel supplies. Most of the Argentine aircraft flying against the British were operating at the end of their operational range, and it is possible that several ditched in the South Atlantic short of their bases. The Argentine military itself indicated at the time that the *Super Etendard* (a naval aircraft) that successfully launched an *Exocet* missile against the HMS *Sheffield* failed to return to base after running out of fuel.

Apart from equipment losses, the Air Force Commander admitted that his service had suffered the much more tragic loss of 55 personnel, including 36 officers, 14 non-commissioned officers, and five others.

Lami Dozo expressed confidence that Argentine losses would be replaced in the near future by aircraft already paid for. However, the true extent of Argentine equipment losses and the even more damaging loss of experienced pilots that would accompany such damage could substantially delay the Argentine Air Force's recovery of its former combat power.

Lt. General Lami Dozo announced that two committees had been formed in the Air Force to study the lessons of the war against the UK. One will look at operating procedures used during the war, the other will examine the Air Force's weapons needs in light of the Falklands experience.

The Argentine Army is also establishing work teams to study changes that may be implemented to improve that force's effectiveness. The Army by all accounts performed much less well than the Air Force during the war, with its units on the islands failing to seriously impede the British ground operations.. The first team will examine lessons of the Falklands fighting, the second will change doctrine and plans in accordance with the conclusions of the first team, and the third group will work on modernizing the Army's equipment and capabilities. ■

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In any case, with the single exception of the attack on the troop ships *Sir Galahad* and *Sir Tristam* at Port Pleasant, where *Rapier* units had not yet been brought into service, the Argentine Air Force was unable to inflict major damage on British forces near enough land to be within the *Rapier* envelope.

Another missile, this one an anti-shipping missile, also produced by British Aerospace, the *Sea Skua* proved effective in its first combat use. The *Sea Skua* was not yet part of the UK's operational arsenal when the Falklands crisis began, but was pressed into service for the conflict. Fired from helicopters, the *Sea Skua* was used to attack several Argentine patrol craft, sinking or heavily damaging them all. Some of the hits were achieved in poor weather, at night, with a heavy sea state that could cause trouble for a sea-skimmer like the *Sea Skua*.

In all, it has been estimated that up to two thirds of the Argentine aircraft that flew against the task force during the San Carlos landing phase failed to reach their targets, falling either to patrolling *Harrier* aircraft (see yesterday's *Daily* on *Harrier* performance) or missile and gun defenses closer in. Despite such a high attrition rate, if it is accurate, it is clear that the task force suffered significant damage, and could have, as stated above, been seriously mauled if Argentine luck and bomb fuzing had been different.

Even a shining performance by British air defense systems seems, in the last analysis, to be the minimum that is needed to survive a determined attack by modern aircraft when airborne early warning and a protective screen of interceptor aircraft are unavailable. ■

EDITION: July 16, 1982

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Defense & Foreign Affairs Daily

A DECADE OF LEADERSHIP 1972-1982

UK: Falklands Missile Performance

MORE INFORMATION on the performance of British anti-aircraft missiles used in the Falklands War confirms that these systems performed well, both inflicting heavy losses on the Argentine Air Force and forcing changes in its tactics that helped reduce the threat to high-value British ship and shore targets.

Most significantly for the ships of the Royal Navy task force, the British Aerospace *Sea Dart* missile, intended to defend against medium altitude aerial targets, brought down the largest number of Argentine aircraft and forced the rest to adopt lower attack profiles than had been planned.

This last aspect has emerged as most significant, with many reports of Argentine bombs passing through task force ships unexploded, their fuzes set for delayed detonation to protect the low-flying Argentine pilots who delivered them on target. Some observers have expressed the opinion that the number of on-target but unexploded Argentine bombs, had they gone off when intended, would have caused sufficient damage to the task force to delay if not interrupt the amphibious operations at Port San Carlos.

The *Sea Dart* system, with which the Argentines were familiar owing to its deployment on Argentine Navy ships, denied the Argentine Air Force a medium or high attack profile, thereby bringing attacking aircraft down into the lethal areas of other defensive systems, such as anti-aircraft gunnery. The extremely low flight profile force on the Argentines also made identification of targets more difficult, perhaps helping to protect vulnerable troop and stores ships that remained stationary for long periods during the landing operations at San Carlos.

The other ship-mounted anti-aircraft missile, the *Sea Wolf*, is credited with bringing down both aircraft and *Exocet* anti-ship missiles. The *Sea Wolf* was mounted on only two of the task force's ships during the fighting, the Type 22 destroyers HMS *Brilliant* and *Broadsword*.

The land-based air defense system, *Rapier*, apparently played a vital rôle in protecting the British land forces. The *Rapier* units were rapidly deployed on land following the initial landings and had considerable success against low-flying Argentine aircraft that attempted to use the terrain to mask their approach. Some observers feel that the *Rapier*'s effectiveness against the low-level raids forced the Argentine Air Force to adopt night-bombing from high altitude using *Canberra* aircraft. This tactic proved ineffective, and was reportedly defeated altogether when anti-aircraft picket ships were placed under the expected flight path of the attacking bombers.

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EDITION: August 3, 1982

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Defense & Foreign Affairs Daily

Falklands: British Used Submersibles

THE ROYAL NAVY reportedly successfully deployed and used a remotely-piloted submersible vessel as a mine neutralization system during the war in the Falkland Islands this year, according to reliable sources. The vessel, made by the French firm of Société ECA, is guided from a mother vessel — presumably one of the trawlers sequestered by the RN for the Falklands crisis, or from a minesweeper — and is guided to the mines after they have been located by sonar. The neutralization vehicle then places explosives around the mine, withdraws, and the explosives detonate the mine.

Sources indicate that around 200 of the systems are now in service worldwide, although the US Navy still has not made a decision on a mine neutralization system. "One mine sewn in New York harbor would be enough to paralyze vital shipping in a time of crisis," one US Navy source told the *Daily*. ■

UK: More on Harrier Performance

MORE DETAILS ARE now available concerning the performance of Royal Navy *Sea Harrier* and RAF *Harrier* aircraft during the Falklands War. (For an earlier summary, see the *Daily*, July 14, 1982.)

Sources indicate that the *Harriers'* performance was excellent, even in difficult weather conditions, in visibility of only a few ships' lengths, and with a cloud base down to 100 feet in difficult seas.

The *Blue Fox* radar is said to have performed as expected, with the radar warning system giving alerts of both airborne and surface radars.

In addition to the 20 *Sea Harriers* deployed originally aboard the carriers *Invincible* and *Hermes*, eight more FRS Mk 1 *Sea Harriers* were deployed as reinforcement, along with 14 Royal Air Force GR3 *Harriers*. In-flight refueling was used during the reinforcement, and eight of the GR3s did two nine-hour ferry legs, breaking their journey at Ascension Island. The *Harriers* which were carried down on the container ship *Atlantic Conveyor* carried out air patrols from the container vessel, and flew directly from the *Atlantic Conveyor* to the carriers when the reached the war zone, indicating the utility of placing *Harriers* aboard container vessels.

Once in the war zone, the *Harriers* and *Sea Harriers* flew over 2,000 sorties, of one and one-half hours each (one and one-quarter in bad weather); each aircraft flew up to six sorties per day, with a flying rate of approximately 55 hours per aircraft per month. Pilots flew from three to four sortries per day, spending up to 10 hours a day in the cockpit, either in flight or on deck in readiness.

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The *Harrier's* vertical takeoff and landing capabilities were demonstrated when the aircraft landed on the aft-platforms of forward-based ships in the battlezone, including the *Fearless* and the *Intrepid*.

Sources confirm that, as the *Daily* reported earlier, availability was greater than 80 percent throughout the conflict, although maintenance crews were only increased by 25 percent over normal peacetime strength despite the fact that the number of aircraft was tripled.

A total of nine *Harriers* and *Sea Harriers* were lost in the war. Of the six FRS Mk 1 *Sea Harriers*, four were lost in accidents and only two to ground air defenses. One of these may have been lost to an Aérospatiale *Roland* missile, but if so this is believed to have been the *Roland's* only kill, despite some claims to the contrary. In addition, three of the RAF GR3 *Harriers* were lost to ground defenses. There were no losses in air-to-air combat.

All known attempts to eject were successful; five pilots were recovered safely after ejection.

Sources say that the *Harriers* accounted for over 30 Argentine Air Force losses, or some 45 percent of all Argentine airborne losses. Of these, 19 were *Mirage IIIs* or *Daggers*. The effectiveness rate of the *Sidewinder* missiles combined with the *Sea Harrier* is said to be over 88 percent; the aircraft's 30mm guns also accounted for seven Argentine aircraft.

In addition to the *Harrier* kills, SAMs brought down 37 Argentine aircraft. Seven other Argentine aircraft were lost, some by their own fire, and some 30 Argentine Air Force aircraft were destroyed or captured on the ground, largely through *Harrier* and *Sea Harrier* action. ■

EDITION: August 4, 1982

ARCHIVO GENERAL DE LA ARMADA
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Defense & Foreign Affairs Daily
DECADE OF LEADERSHIP 1972-1982

Argentina: Production Plans Continued

ARGENTINA WILL proceed with its plans to produce the IA.63 advanced jet trainer in the wake of the Falklands War according to the Argentine Air Attache in Washington DC, who told the *Daily* that the project is on schedule.

The first prototype of the aircraft is expected to be ready in July 1984. The Air Force has a requirement for 250 of the aircraft which are being produced with assistance from Dornier of the Federal Republic of Germany.

The goal is to produce an efficient, inexpensive trainer that will be attractive for export. At a time when few Argentines are willing to talk to the press, Brigadier General Ricardo Peña said, "We are proud of making airplanes". Looking toward the future he explained: "We expect the IA.63 to have the performance of a *Hawk* or *Alpha Jet* but at half the price".

The new aircraft will be powered by the Garrett TFE-731-3 turbofan engine. The trainer could be available for delivery in 1985-1986. Although no concrete plans have been made, there is a possibility that the IA.63 jet trainer may be played at the Paris Air Show in May 1983.

The successful development of the IA.63 trainer will be the first step in the momentum required for Argentina's production of combat aircraft in the future. The nation is well aware that further training and know-how are needed before it can embark on what its military officials have called "the fighter aircraft of the 1990s". This is a project which is on paper in only a rudimentary way. It must still be "thought about, developed and funded", according to an Argentine official.

The Argentines seem anxious to learn about the latest developments in the aircraft industry. They are eager to develop the close relationships that will ultimately result in the transfer of the types of technology that they are still lacking. At one point, Argentina thought that the US might be its mentor in the field, but in the wake of the Falkland crisis (when the US threw its support behind the UK, instead of Argentina) this seems no longer possible. Argentina may instead team up with neighboring Brazil, a country whose aircraft industry is diverse and growing.

In the past, Argentina has been known for its manufacture of the IA.58 *Pucará* attack aircraft which has made its reputation as a counter-insurgency platform but performed other unique missions during the war. The second improved 'B' verson of the *Pucará* has been fitted with a 30mm cannon (replacing light-caliber guns). A third and final version of the aircraft is also planned for production, but no details are yet available. Uruguay has been the only country to buy the *Pucará* to date (reportedly buying six aircraft). However, the Argentines are hoping to sell more of the twin turboprops abroad. Prior to the war several countries expressed a serious interest in buying *Pucarás*, but such plans have been set aside at least temporarily.

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EDITION: August 4, 1982

The military-controlled Fabrica Militar de Aviones (FMA) is the company which produces Argentina's military aircraft. As long as FMA was manufacturing aircraft for the *Fuerza Aerea Argentina* there was a consensus of opinion that the military should be in charge of the company, but now that Argentina is anxious to break into the export market the Argentines see "privatization" as the key to success. FMA will be reorganized into a mix of civilian and military personnel. The entire process will be complete in five years if the plan proceeds on schedule. ■

Austria: Tanks to Argentina?

THE AUSTRIAN FIRM Steyr-Daimler-Puch is reportedly negotiating with the Argentine Government for the delivery of 27 *Kürassier* light tanks, whose transfer was delayed by the outbreak of the Falklands War (see the *Daily*, Tuesday, April 13). The head of the firm's arms section is reportedly in Buenos Aires with a company delegation working out arrangements to complete the sale.

Prior to the Argentine invasion of the Falklands April 2 Austria was in the process of delivering the tanks, which are being purchased under an option provision of a contract signed by Argentina and the manufacturer in 1981. Argentina has already taken delivery of 56 *Kürassiers* under the agreement. The value of the third purchase is reportedly around US $30-million.

If true, the report of the Austrian tank deal is another indication of the apparent arms thaw that is seeing arms supply relationships with Argentina begin to be re-established after the end of hostilities in the South Atlantic. A major step in this direction has been the recent reported decision by the Argentine military to purchase Israeli *Mirage* fighters to help replace Falkland War losses. ■

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Defense & Foreign Affairs Daily
A DECADE OF LEADERSHIP * 1972-1982 *

EDITION: August 12, 1982

Argentina: Aid From Libya Confirmed

IN SYMBOLIC FASHION, Argentina is thanking Libya for military assistance rendered during the recent Falklands War, confirming rumors that Libya had aided Argentina during the war. Buenos Aires has sent Libya a small sailboat and a flight jacket with a golden Argentine coat of arms as gifts for Libyan leader Col. Muammar Qadhafi. Two Creole horses from the Army will also be sent for Qadhafi. Libya was thought to have supplied Argentina with various war materiel, including *Exocet* missiles. ■

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Defense & Foreign Affairs Daily
A DECADE OF LEADERSHIP 1972-1982

EDITION: August 15, 1982

West Germany: No Arms to Argentina

FOLLOWING THE FRENCH decision to lift its arms embargo against Argentina, imposed during the Falklands War (see yesterday's *Daily*), West Germany has reaffirmed that it will not lift its embargo until the conflict between the UK and Argentina is "definitively ended in the political sense".

West Germany's major arms dealings with Argentina are in the naval area. The West German firm Blohm and Voss, Hamburg, is building four MEKO-360 destroyers for Argentina. Thyssen Nordseewerke, Emden, is building four TR-1700 class submarines for Argentina. In addition, Argentine shipyards are building two TR-1400 submarines and six MEKO-140 (also known as -1470) frigates, based on German designs.

A West German Government spokesman said that all types of weapons and all contracts, including ones signed prior to the imposition of the embargo, are covered by the embargo policy. ■

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Defense & Foreign Affairs Daily
A DECADE OF LEADERSHIP * 1972-1982

EDITION: August 16, 1982

France: Argentine Super Étendards

As a result of the lifting of the French arms embargo on Argentina, the remaining AMD-Breguet *Super Étendard* aircraft originally ordered by Argentina will reportedly be delivered in the next eight to nine months. The embargo was lifted in light of the apparent end of hostilities in the South Atlantic.

Five *Super Étendards* were believed to have been delivered before the Falklands war broke out. One reportedly crashed in the ocean, out of fuel, after launching the AM.39 *Exocet* missile that destroyed the British destroyer HMS *Sheffield*. Unconfirmed reports have held that British commandos destroyed a number of Argentine *Super Étendards* at their airbases in Argentina. If five *Super Étendards* had indeed been delivered before the Falklands conflict, nine aircraft would remain to complete the order of 14, made in April, 1980.

The lifting of the embargo may also rejuvenate another deal between France and Argentina in which the Argentines, under license from the French group Saviem-Creusot Loire, would produce up to 700 military vehicles. ■

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Defense & Foreign Affairs Daily
A DECADE OF LEADERSHIP 1972-1982

EDITION: August 23, 1982

UK: Falklands Weapons Performance

BRITISH AEROSPACE observers, who have suggested several of the conclusions that might be drawn from the recent Falklands War (see yesterday's *Daily*), have detailed some of the weapon performance to illustrate their points.

Rapier Highlighted

In speaking about the performance of BAe systems in the South Atlantic, company officials seemed most pleased by the record of the *Rapier* SAM system. Their satisfaction derived from the good performance put in by it despite the adverse conditions surrounding its deployment. Hastily packed into ships for the voyage to the South Atlantic, the *Rapier* batteries were for the most part inaccessible and therefore could not be tested or adjusted en route.

At the end of the eight week trip, the *Rapier* batteries were, in the words of BAe observers, "unceremoniously bundled ashore" during the amphibious landings at San Carlos and elsewhere, receiving rough treatment. Operating conditions were severe; extremely cold, wet weather, with poor visibility and no early warning. Nonetheless, *Rapier* accounted for 13 Argentine aircraft shot down. According to company officials, the *Rapier* batteries often shot downhill, and the missile crews, who were using the system's optical sights due to the terrain and low flight paths of the Argentine aircraft, would occasionally have to try to pick out targets as they flew among the British ships at anchor in San Carlos Water. Target aircraft were often picked up visually at a range of 3 kilometers or less.

In praising the *Rapier*'s performance, BAe officials recounted the story of a young soldier who had received only simulator training on the *Rapier* before being sent to the Falklands. However, using the optical sight on a real aircraft for the first time, the soldier shot down his target.

Adaptability Emphasized

BAe officials, who listed adaptability as a key characteristic of modern weapon systems, offered several examples of what they considered to be easily modified weapons. The *Sea Wolf* missile, the newest SAM with the Royal Navy, was originally designed to have an anti-missile capability against Soviet surface-to-surface missiles.

Soviet anti-shipping missiles have usually employed a high speed, high-angle-of-attack, "pop up" flight profile in the terminal phase of their flight, whereas the *Exocet* missiles threatening the Task Force were sea-skimmers. The *Sea Wolf* was

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successfully and quickly modified to cope with a sea-skimmer attack, according to BAe officials.

Pleased with the performance of *Sea Dart*, the longer-range SAM in use with the Royal Navy, BAe officials said they are in the process of developing a light-weight, improved version, which will incorporate lessons learned from combat in the South Atlantic. They are also planning to develop a mobile, containerized, land-based version of the *Sea Dart*, which will be called *Guardian*.

Guns versus Missiles

BAe observers argued that the Falklands experience showed the superiority of missiles over guns as air defense weapons. But the record in the Falklands indicates that guns are a useful adjunct to missiles in an air defense umbrella; all but one of the five *Harriers* believed lost through Argentine action were hit by guns, and an initial count of Argentine losses suggests that up to 14 aircraft shot down by the British were hit with gunfire.

The apparent inability of the Argentine garrison on the islands to properly operate their *Roland*, or *Tigercat* batteries left them with essentially a "guns only" air defense, so perhaps the more precise lesson of the battle may be the inadequacy of anti-aircraft artillery alone in dealing with a modern air attack. ■

UK: HVMs for Helicopters?

BRITAIN IS REPORTEDLY keen to test a revolutionary new US missile concept as a means of protecting helicopters. Work is as yet in the R&D stage, but the British researchers believe that Vought's Hypervelocity Missile (HVM) concept may be the most suitable method of providing an anti-aircraft capability for helicopters which could find themselves in future dogfights with other gunship helicopters.

HVMs, which are also being studied under US Air Force R&D contracts in the US, offer the possibility of missiles which destroy targets through the kinetic energy built up by extremely high velocities. The missiles are small (because they carry no explosive warhead), and can be guided by laser devices.

According to one source, the British envision use of a number of "bolt-like" missiles carried in pods strapped to the helicopters. According to some reports, the prevailing view in British defense circles that an adaptation of the US General Dynamics *Stinger* man-carried SAM would be suitable has been questioned recently. *Stinger* is the successor to the *Redeye* SAM; both use passive infra-red homing guidance in their current configuration.

No confirmation is available, but one report said that *Stingers* had been taken to the Falkland Islands with the British Task Force, but their performance there had "raised questions" about their suitability for the air-to-air rôle. This development implied helicopter air-to-air defense will need a re-think. ■

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StrategyWeek

The Weekly Report on the Middle East, Africa, Asia, the Pacific and Latin America

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Published 50 Times a Year

Leadership Profile: Admiral Jorge Isaac Anaya

Commander-in-Chief, Argentine Navy, and Member, Ruling Junta

Admiral Jorge Isaac Anaya, as a member of Argentina's ruling three-man junta and Commander of the Argentine Navy, has been at the center of recent developments in Argentine internal politics and the current international crisis over the Falkland Islands.

Anaya was born on September 27, 1926 in Bahiá Blanca. He entered the Argentine Naval Academy in 1944, graduating in 1948. A specialist in communications, Anaya received steady promotions through service at shore bases and on several Argentine destroyers, corvettes, and the recently sunk cruiser *General Belgrano*. He holds a Masters' degree in communications engineering from the University of Buenos Aires, and has received training as well as served as an instructor at both the Argentine Naval Academy and the Naval War College. He also received advanced military instruction in Paris. In 1975 Anaya served as Argentine naval attaché in London.

Anaya became Vice Admiral in charge of naval personnel in 1977, rising to full Admiral and Commander of the Argentine Navy in September, 1981. It is widely believed that his support of and participation in General Leopoldo Galtieri's seizure of power in the junta shake-up of December 1981 was conditioned on a promise to resolve the "Malvinas issue" quickly, using force if need be.

Admiral Anaya is married and has two sons. ■

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StrategyWeek

The Weekly Report on the Middle East, Africa, Asia, the Pacific and Latin America

April 19 - 25, 1982
Volume VIII, No. 15
Number 99, New Series
Published 50 Times a Year

Weekly Update: Skyhawk Engines; Latin Fleets; ROC Deal; Sudan

MYSTERY ENGINES: Despite the US "tilt" toward Britain by sharing communications links and data, Argentina may have acquired 32 used J-65W engines for its McDonnell Douglas A-4 *Skyhawks* recently. The engines were sold as surplus by the US Government to Turbine Allied Corp. of Washington, New Jersey, which took possession April 8. It appears that the engines have been sold to Argentina, although Turbine Allied refuses comment and the State Department's Office of Munitions Control reports that the arms ban on Argentina continues and no military equipment has been licensed for sale.

LATIN MANEUVERING: As the British task force nears the Falkland Islands, Argentina is not the only Latin power flexing its naval muscles. Its adversary Chile has dispatched a squadron to the South, and Peru also is carrying out maneuvers (See Page Two). And Brazil has announced that a force of three frigates and five torpedo boats are carrying out "routine maneuvers" off Paranaguá in southern Brazil while a submarine and landing craft operation was carried out last week on the northeast coast. But Brazil's carrier, the *Minas Gerais*, — a *Colossus*-class sister ship of Argentina's *25 de Mayo* — is in port at Rio and the Brazilians say the maneuvers were planned long before the Falklands crisis.

Latin America: Chilean, Peruvian Squadrons at Sea

In moves apparently related to the UK-Argentina confrontation over the Falkland Islands, both Chile and Peru have sent naval squadrons to sea. Chile, which shortly before the Falklands crisis had gone through another in a long series of conflicts with Argentina over territorial disputes in the Beagle Channel, has sent a naval squadron to the southern port of Puerto Montt. (Its more southerly port at Punta Arenas is considered more vulnerable, being in the Strait of Magellan.) The squadron, sailing under the command of Chilean Navy Commander-in-Chief Rear Admiral German Gueselaga, was said to include the 8,200-ton cruiser *Latorre*, the flagship of the Chilean Navy. The cruise was described as a "routine exercise," a description given to land force maneuvers conducted at the height of the border tensions with Argentina in March.

Meanwhile Peru, which supports Argentina's claim to the Falklands and traditionally has allied with Argentina against southern neighbor Chile, has announced that a naval task force has been sent to the waters off the Peru-Chile border. The force is said to include submarines.

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StrategyWeek

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TASK FORCE DETAILS: Further details are now available on the composition of the British Royal Navy task force now *en route* for the South Atlantic. Based on a Ministry of Defence list released during debate in Parliament, plus press reports of sailings, the task force is said to consist of:

Aircraft carriers: the *Invincible* and *Hermes*; the *Hermes* is also carrying Royal Marine units. A third aircraft carrier, the *Illustrious*, a sister ship of the *Invincible*, is undergoing accelerated sea trials after recent delivery to the fleet.

Assault ship: the *Fearless*, 11,060 tons, amphibious landing ship with *Wessex* helicopters.

Light cruisers: the *County*-class light cruisers (sometimes classed as destroyers) *Antrim*, *Glamorgan*, and possibly the *Fife*, each 5,400 tons,

Destroyers: two *Broadsword-class*, *the Broadsword* and the *Brilliant*, each 3,500 tons.

Frigates: three *Amazon*-class (Type 21) frigates, the *Arrow*, *Alacrity*, and *Antelope*, each 2,750 tons; two of the *Rothesay*-class (Type 12), the *Plymouth* and *Yarmouth*, each 2,380 tons. Six *Leander*-class frigates were in port at Portsmouth after the *Spring Train* exercise; reports suggested at least three — *Dido*, *Euryalus*, and *Battleaxe* — were expected to join the fleet; the other three — *Aurora*, *Active*, and *Ariadne* might do so as well. Some press reports suggested three *Sheffield*-class (Type 42) frigates might also join the task force: the *Sheffield*, *Coventry*, and *Glasgow*.

Fleet tankers: the *Appleleaf*, *Tidespring*, *Pearleaf*, and *Olmeda*.

Supply ships: the *Fort Austin*, *Resource*, and *Stromness*.

Landing ships: the *Sir Galahad*, *Sir Geraint*, *Sir Bedivere*, *Sir Percival*, *and Sir Tristam*, all 3,250 tons.

Other: The requisitioned passenger liner *Canberra* is carrying troops, including 650 men of the British Army's Parachute Regiment; it can accomodate up to 5,000 men as a troopship, and has facilities for rest and recreation. The requisitioned roll-on-roll-off container ship *Elk* is carrying *Scorpion* light tanks. At least three other civilian ships have been requisitioned for use in the task force: *Irishman*, *Salvageman*, and *Yorkshireman*.

The *Swiftsure*-class nuclear hunter-killer submarines *Superb* and *Spartan* are already believed to be on station patrolling the 200-mile " Maritime Exclusion Zone"around the Falklands; their sister ships *Splendid* and *Sceptre* may also be there or may be accompanying the main task force of British surface ships in its cruise to the Falklands.

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StrategyWeek

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April 26 - May 2, 1982
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TASK FORCE MISSILES: Britain's Royal Navy task force for the Falklands has filled its need for an air-to-surface missile by embarking the *Sea Skua* ASM, although the *Sea Skua* is not yet in regular inventory. Also, *Strategy Week* has learned, some of the task force ships are carrying deck-borne *Rapier* SAMs.

Latin America: Falklands Force Update

Both the UK and Argentina appeared to be making additional military preparations in the South Atlantic as negotiations over the Falkland Islands issue continued. The UK's task force is scheduled to receive additional ships (for the earlier list, see last week's *Strategy Week*), including:

Assault ships: the amphibious assault ship *Intrepid* (recently de-commissioned sister ship to the *Fearless*, already with the task force) has been re-activated and will sail from the UK after a crew has been assembled. Auxiliary tanker and nine chartered civilian tankers will be added.

Troop ships: the North Sea ferry *Norland* and the *Europic*. Reportedly 1,000 men of the British Army Parachute Regiment will embark on these two ships, along with engineering troops and artillery.

Supply ships: the container freighter *Atlantic Conveyor* will carry additional *Harrier* aircraft for the task force. Several other small supply vessels will be added.

Tankers: the tanker *Anco Charger* will reportedly carry fresh water supplies. In addition, one Royal Fleet Auxiliary tanker and 9 chartered civilian tankers will be added.

Minesweepers: The trawlers *Farnella*, *Cordella*, *Northella*, *Junella*, and *Pict* have been requisitioned for use as minesweepers.

A total of 12 ships have been requisitioned and 13 chartered.

According to Argentine reports three C-130 *Hercules*, one Boeing 737, and two Fokker 28 aircraft are supplying the Falklands, ferrying supplies and men from Rio Gallegos on the mainland to the Port Stanley airfield, which reportedly has been lengthened through use of portable metal runways.

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StrategyWeek

The Weekly Report on the Middle East, Africa, Asia, the Pacific and Latin America

May 17 -23, 1982
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Published 50 Times a Year

Weekly Update: Falkland Questions; Nimrods; Argentina; Saudi Budget

SEA EAGLE QUESTIONS: The first Royal Navy *Sea Harrier* shot down in the Falklands conflict had previously been involved in trials of the *Sea Eagle*, the new anti-shipping missile for the Royal Navy. That fact raises questions: could the aircraft still have been wired for the *Sea Eagle* system when it crashed? If so, given reports of Argentine cooperation with Cuba and the USSR, sensitive equipment could be involved.

NIMROD REFUELING: Britain's *Nimrod Mark II* ASW and reconnaissance aircraft have been fitted with an aerial refueling capability, allowing them to take a probe from *Victor* tankers. This enhances their over-the-horizon capability in surveillance and allows them to patrol the Falklands region from the Ascension Island base. The aerial refueling equipment was added in a "rush job" at British Aerospace's Manchester factories.

ARGENTINE PLANS: Argentine policymakers plan to revamp their armed forces once the Falklands affair is over, shifting from a "continental force" to a "quick reaction force", according to sources close to the Argentine Armed Forces Joint Staff. The plans stem from what senior officers called a "comedy of errors" in the movement of troops and logistics support during the Falklands and South Georgia occupations. Meanwhile, say the sources, a number of highly trained Argentine volunteers have offered to "press home" the conflict against the Royal Navy, presumably by *kamikaze* tactics.

NO NEW ARGENTINE DEALS: Israeli Foreign Minister Yitzhak Shamir has said that, in the wake of British protests about Israeli arms deliveries to Argentina since the outbreak of the Falklands crisis (see *Strategy Week*, last week), Israel will sign no new arms deals with Buenos Aires for the time being. The Foreign Ministry made clear, however, that any previously signed arms deliveries would proceed as scheduled. Israel never announces pending arms transfers, but the fact that Shamir did not rule out the possibility that previously ordered arms might be delivered was unlikely to be well-received in London. Reports now say that the number of *Dagger (Nesher)* aircraft in Argentina is probably 42, or at least 16 more than were known to be present at the outbreak of the conflict. *Strategy Week* reported last week that Israeli advisers have also arrived in Argentina since the crisis began.

In another military matter, a Brazilian Navy source said that an Aérospatiale *Exocet* anti-ship missile had failed a flight test carried out by the Brazilian Navy last December. The missile was the sea-launched version of the *Exocet*; its air-launched version has drawn considerable Latin American attention since Argentina's use of an *Exocet* launched from an Argentine Navy *Super Etendard* to destroy the British destoryer *Sheffield*.

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StrategyWeek

The Weekly Report on the Middle East, Africa, Asia, the Pacific and Latin America

May 24 - 30, 1982
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Number 104, New Series
Published 50 Times a Yea

Weekly Update: Peruvian Sukhois; Bandeirantes; Guatemalan Coup?

SUKHOIS TO ARGENTINA? *Strategy Week* has received reports claiming that Peru's Sukhoi Su-22 fighter aircraft, normally based at Arequipa in southern Peru, have been moved to Argentina and deployed in Mendoza Province, east of the Chilean capital of Santiago. Peru has denied earlier reports that it has sent forces to Argentina and Peruvian diplomatic sources deny this latest claim as well. But Peru; like Argentina, harbors latent territorial claims against Chile.

ARGENTINA'S BANDEIRANTES: Argentina is already using the Embraer EMB-111 *Bandeirante* maritime patrol aircraft that it recently acquired from Brazil. Argentine officials have been evaluating the Engesa *Cascavel* armored car, with a large purchase possible. These moves may carry over beyond the current crisis, meaning more reliance by Argentina and other Latin American countries on nearby sources of arms. (An ironic note: the maritime version of the *Bandeirante* was originally designed to specific Chilean requirements.)

Latin America: Brazil Studies Falklands Lessons

The military conflict between Argentina and the UK in the South Atlantic has changed Brazilian military thinking about national defense planning. The example of Brazil's southern neighbor engaged in war with an advanced European country has altered the traditional focus on possible armed conflict with regional powers, most likely other Latin American countries.

Heightened concern for national defense has several important implications for Brazilian domestic policy. Resources may be allocated to defense production instead of more general economic development, as the EEC embargo on arms and trade to Argentina as a result of the Falklands crisis has shown the unreliability of European suppliers. In this regard, the Brazilian policy of developing a domestic arms industry has, in the opinion of Brazil's military, proven to be a wise hedge against international political disruption of arms imports.

Another key aspect of new military thinking is the importance of the military's professional rôle in preparing for possible conflict, as opposed to its declining and controversial participation in domestic politics. Moves toward civilian rule may be given new force by the reconsideration of national defense needs.

The Rumor Mill

Chile believes that **Argentina** planned to occupy the three disputed islands in the Beagle Channel as well as the **Falklands**, in a broad operation called "Operation Rosario" aimed at capturing all its claimed territory, but abandoned the Beagle Channel move when confronted with the British response on the Falklands . . . Rumors from several sources spoke of **Argentine** approaches to **Libya** in hopes of acquiring arms; the **UK** was said to have received Libyan assurances that no such approaches had been made, and the rumors said Argentina was seeking additional *Exocet* missiles, which Libya is not known certainly to possess, though there have been reports it does have the anti-shipping missile . .

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StrategyWeek

The Weekly Report on the Middle East, Africa, Asia, the Pacific and Latin America

May 31 - June 6, 1982
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Number 105, New Series
Published 50 Times a Year

Weekly Update: Illustrious; AWACS Concern; Egypt; LAV

ANOTHER *HARRIER* CARRIER: HMS *Illustrious*, sister ship of the *Invincible* and the second V/STOL *Harrier* aircraft carrier of its class, will reportedly sail soon to join the British Task Force operating in the Falklands. Sea trials were carried out earlier this year, and now British shipyards have "done 11 months' work in three weeks" to get the *Illustrious* ready for service. She was originally scheduled to be handed over to the Royal Navy sometime next year.

Latin America: Falklands Diplomatic Fallout

While British relations with much of Latin America will clearly suffer from the Falkland Islands fighting, any serious diplomatic impact on the US is less certain. With few exceptions the US decision to back the UK has drawn Latin American criticism, but many observers, including US officials, feel that the importance and diversity of US ties with Latin countries will prevent long-term damage.

Venezuela and Peru, Argentina's strongest supporters, also are Latin American countries with very good, and recently improving, ties with the US. Venezuelan President Luis Herrera Campins has said that the US will be the country "most seriously harmed" by the war in the South Atlantic, but analysts doubt that US-Venezuelan ties would suffer very greatly. The US is the largest buyer of Venezuelan oil, as well as its largest trading partner. The Venezuelan Congress recently reaffirmed the country's interest in buying 24 US-made F-16 fighter aircraft (see *Strategy Week*, May 17-23, 1982). Peru is in need of multilateral as well as US financial assistance and is unlikely to let the Falklands issue seriously damage relations with the US.

One unofficial US observer termed support for Argentina by other Latin American countries "paper thin" due to Argentina's traditional aloofness, the controversial nature of the Argentine military Government, and the priority of each country's current domestic problems.

The region's largest country, Brazil, has sold arms to Argentina (see *Strategy Week*, last week and May 3-9, 1982) and given its verbal support to Argentine claims, but the recent visit of Brazilian President Joao Figueiredo to Washington in the midst of the crisis showed the limits to Brazilian expressions of solidarity over the Falklands issue.

The kind of aid Latin American countries have offered Argentina, mostly economic, indicates that the Falklands crisis is not regarded as a vital national issue by most Latin American governments. Reports of Peruvian, Venezuelan, or even Panamanian military assistance to Buenos Aires do not mean that hemispheric relations will be poisoned for any length of time, according to private comments of US officials. The reticence of Argentina so far to ask the Organization of American States (OAS) for stiff collective measures such as military intervention or economic sanctions against the EEC reflects Argentine realization that regional support for its cause is limited, say analysts.

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StrategyWeek

The Weekly Report on the Middle East, Africa, Asia, the Pacific and Latin America

June 14 - 20, 1982
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Published 50 Times a Year

Weekly Update: Falklands Notes; Israel in Lebanon; Falklands Conference

FALKLANDS NOTES: Anglo-French ties were strengthened considerably by the provision by France of AMD-Breguet *Super Étendard* and *Mirage III* fighters for RAF and Royal Navy pilots to develop their air combat skills against in their BAe *Harrier* and *Sea Harrier* aircraft. **Decoy:** The British container ship *Atlantic Conveyor*, devastated by an Argentine AM.39 *Exocet* air-to-surface missile, was being deliberately postured as a "carrier look-alike", in order to act as a decoy to protect HMS *Invincible* and HMS *Hermes*. The merchantman had a screen of escort warships in order to project the same radar silhouette as a carrier task-force. The deception worked, but at the cost of the merchant vessel. Also reported was the fact that one of the escorts released a chaff round which diverted a second AM.39 which had been fired. **Systems Planning:** Main focus of concern in the British Ministry of Defence over the loss of HMS *Sheffield* centers around the fact that while the ship is using its satellite link with London it must turn off *all* of its RF transmitters and sensors, ie: it must completely blind its sensors and ECM. This is what happened when the AM.39 hit *Sheffield*. This major systems planning failure is receiving top priority at MoD, as are other already identified shortcomings, including toxic fume/flammability questions on internal ships' cables, the deficiencies in the Marconi radars, poor integration (by the Admiralty Surface Weapons Establishment) of the otherwise excellent *Sea Dart*, and so on. **Argentine SAMs:** Two Euromissile *Roland II* SAM systems are ashore with Argentine forces at Port Stanley, but one system is known to be defective. *Tigercat* SAMs are also ashore.

BRAZIL TO DETAIN *VULCAN* BOMBER: Reports from Brasilia say that the Brazilian Government will not allow the British *Vulcan* bomber that force-landed at Rio de Janeiro to return to its Ascension Island base. The aircraft made its emergency landing presumably while involved in some operations related to the Falklands War. A Foreign Ministry spokesman announced that the Government had reconsidered its earlier decision to release the aircraft after receiving a request from the Argentine Embassy in Brasilia. The *Vulcan* apparently will be held until the end of hostilities in the South Atlantic.

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StrategyWeek

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Latin America: Falklands Air Defenses

Cavalrymen from the British Blues and Royals Regiment of the Household Cavalry, who returned to the UK last week after fighting with their Alvis *Scorpion* light tanks in the Falklands, praised Argentine Air Force strike aircraft pilots for the way they pressed their attacks. "They came in at less than turret height (about eight feet)," one cavalryman said. "They were, because of terrain, well below any field of fire for any of the missiles, even the (British Aerospace) *Rapier*, which was otherwise having a field day with the attackers. We were using our 30mm guns on them, and more often than not we were firing with a depressed trajectory."

Other British Army experts noted that the Argentine tactics made a mockery of US Army doctrine which says that a "low-level" air strike is made at around 300 feet. The 30mm gun-equipped *Scorpions* recorded two hits on Argentine A-4 *Skybawks*, with one confirmed kill and a probable. Meanwhile, British Army officials are delighted with the way the *Scorpions* performed in the Falklands, going "where, quite literally, no man had ever gone before", over bogland which local guides had said was impassable. And yet the Falklands was not regarded in any way as "armored country": it has rugged mountains, boulder-strewn valleys and peat, bog and swamp with good fields of fire for anti-tank missiles. One *Scorpion* triggered a 15 lb. landmine which blew the vehicle four feet in the air, but which left the crew completely unhurt and the vehicle requiring only base repairs. Several British force commanders in the field said that their faith in tracked vehicles over wheeled was "fully vindicated"; the *Scorpions* went where no wheeled vehicles could go.

Latin America: Brazilian Nuclear Ambitions?

Attention in Brazil has been centered on that country's possible nuclear weapons ambitions by official statements and allegations concerning the Government's plans for development of nuclear power for military purposes.

Vice President Antônio Aureliano Chaves, while observing Brazilian naval exercises, refused to rule out the development by Brazil of nuclear explosives. While he noted that the Brazilian-West German nuclear cooperation agreement implies that Brazil will not use nuclear energy for military purposes, Chaves said that "one cannot anticipate the future." The impression that he was leaving the question of eventual nuclear weapons program open was reinforced by Chaves' reference to Brazil's international treaty status. Brazil has not signed the Nuclear Nonproliferation Treaty and has not ratified the Latin American regional nonproliferation agreement, the Treaty of Tlatelolco.

Ever since the Falklands War broke out, Brazilian military figures have been stating that Brazil needs an enhanced military posture to secure its regional interests. Vice President Chaves said that Brazil must have "armed forces adequate to the importance and responsibilities Brazil has in the world today" and that a fundamental goal of Brazilian defense development was "to achieve a certain degree of autonomy in relation to foreign equipment."

The refusal to rule out military nuclear development parallels earlier statements by the head of Argentina's nuclear power authority. Following the Argentine defeat in the Falklands, the top Argentine nuclear official stated that Argentina would reserve its right to develop nuclear weaponry (see *Strategy Week*, July 5-11).

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